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DAILY EDITION

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WE GUARANTEE, that of this issue more than 9,000 copies were printed; that of those more than 9,000 copies 7,535 were mailed to regular paid subscribers to the Railway Age Gazette, weekly edition, and Railway Age Gazette, Mechanical Edition; 224 were provided for counter and news companies' sales; 241 were mailed to advertisers and correspondents; and 1,000 were provided for distribution at Atlantic City.

The problem of reclaiming material from the scrap pile has been given much attention during the past few years. It is a matter of great importance, and one which is being found to be rather difficult of solution. This fact is evidenced in the committee organizations which various roads have tried in an effort, not only to supervise the scrapping of material, but to bring about a proper appreciation of its value on the part of the men who are directly connected with its application. Where the organization having the actual expenditure of the money is far removed from the one which uses the material, a lack of proper appreciation of its value is only natural. In a campaign of this kind there is always a tendency to go to extremes. There are various reasons for scrapping material. Improvements in design make many locomotive and car parts obsolete, and may require the scrapping of otherwise serviceable material. This applies especially to castings. Many locomotive parts are scrapped which appear to be serviceable on casual inspection, but which are really not suitable for further use because bolt holes have been reamed until the parts are weakened beyond a safe limit, or because of other defects which can be detected only by an experienced man. Such material, after being shipped to the scrap yard, is often sorted out and returned to store stock, where its accumulation is a great burden, and attempts to work it off result in unnecessary friction between the store and mechanical departments. This practice tends to discredit the whole plan of reclamation with the men whose assistance is most needed to make it a success. With the scrapping of material properly supervised at the local points, it is improbable that an appreciable amount will be found in the scrap pile which is in serviceable condition, and great care should be exercised to prevent overzealousness in the effort to make a showing at that point.

Reclaiming Material

The verbal report of progress on safety appliances and the discussion showed how very far the enactment of a law is from the final settlement of a problem. The law consists of a number of words upon which each individual concerned may put his own interpretation. There was a loud call for education of men and officials as to the meaning of the law, and indications are that this will be systematically undertaken. The one thing to be borne in mind in this campaign is that the educators agree in what they teach, and, for that reason, it seems the proper province of the M. C. B. Association to undertake the work rather than leave it to the individual roads to conduct it in their own way with their own employees. If the association does it, there will be a unison of action and instruction that will bear fruit of value. If the roads do it, each for itself, there cannot fail to be differences of opinion and practice. And above all, the work should be done with the full knowledge and concurrence of the government inspectors. The railways and the representatives of the government must agree on what to do and how to do it, or the roads will find themselves in serious trouble.

Safety Appliances

It has been a long siege, this determination of brakeshoe efficiency, or coefficiency as it might be called, and it sounded a note of relief to have a member of the committee say that all data needed to draw inferences had been gathered and that no more tests were called for. The beginning of the work goes back so far into the past that we cannot recollect when efforts were not being made to determine the values of brake resistance and the rate of wear. We have learned a lot since Mr. Sargent began work with model shoes at Aurora, and now we can settle down and do no more. The brake testing machine can be sold for scrap and the railroads work safely and happily ever after. But perhaps, on second thought, it would be just as well not to throw the machine away just yet. There may be other investigations in the future. We may want to try out the effects of cracks on the coefficient of friction and wear, that were spoken of yesterday morning and the man who has a new and better material to exploit is not dead yet. We may have even higher pressures to deal with than we ever had before, and there may be points in the clasp brake that are not fully understood. But it is good to know that the original investigation has been so rounded up that definite conclusions can be reached and definite recommendations made, both of which may be looked for in next year's report.

Determination of Brake Shoe Efficiency

This morning's technical session is to be opened with the presentation of the report on mechanical stokers. Theory is fast ripening into experience in this matter, and experience should be ripe enough by this time to have some definite word to say in regard to it. There are many men who have had a great deal of experience with the several mechanisms that are upon the market, and a number of the members of the Master Mechanics' Association have contributed largely to the development of the present state of the art. What they have done and what they expect to be accomplished should be of great interest to the convention, and there is hardly a subject on the program where experience is of greater interest than it is here. There are the effects of variations in coal, in work done, in adjustment of draft appliances, in the personnel of the firemen, the economy of transporta-

Mechanical Stokers for Locomotives

tion, the tonnage rating of the locomotives, cost of maintenance, cost of fuel; in fact, there is hardly a point in the whole range of locomotive or railroad operation that is not intimately associated with the mechanical stoker and which will not be influenced by its successful development and application. There are, then, ample resources for a brisk and vigorous discussion, one that might easily be extended far beyond the limits of the brief fifteen minutes that is allotted to it; a time interval that is scarcely enough to give the meeting a chance to catch its breath and get under way.

Recent Locomotive Development

Only a few years ago motive power men throughout the country were practically a unit against adopting any appliance on a locomotive that would add to its complication. Their reasoning followed the lines of probable increases in the number of engine failures, and the difficulties that would be injected into repair work, particularly at roundhouses. There has been, in general, a marked change in this attitude; the modern locomotive, with its superheater, power reverse gear, improved air brake equipment and a host of other features which add to its complication, would have made a superintendent of motive power of 15 or 20 years ago hold up his hands in horror. Railway mechanical men began to realize some years ago that to successfully cope with the rapidly increasing difficulty of operating conditions, locomotives would have to be built along lines that provided for refinements in design and the employment of special devices, as well as increase in size; indeed the latter, probably more than any other single consideration, has made refinement necessary. When electrification began to receive serious attention a few years ago, and the first installations were made, the electrical engineers had a splendid argument in the increased efficiency of the electric over the steam locomotive; but the advances made since that time in mechanical engineering as applied to steam locomotives have been so great that electrification is now given but slight consideration except for tunnels and short sections where conditions make it specially adaptable.

Colleges and Our Mechanical Associations

In the "little interviews" in this morning's issue may be found expressions of opinion from representatives of two of our colleges who are present at the meeting and who take a very considerable amount of interest in the work both of the M. C. B. and M. M. Associations. In times past we have received much aid along research lines from both Purdue and the University of Illinois. Professor Wood, of Pennsylvania State College, has been a regular attendant at the conventions and, as noted in his interview, the students of that institution are becoming interested in railway mechanical department work and undoubtedly will, as time goes on, develop certain lines of research work which will prove of value to the association. Professor Hibbard, of the University of Missouri, is well known because of his railway mechanical engineering courses, and a number of men who have studied under him and received inspiration from him have become strong factors in the work of the two associations. Professor Endsley, whose research work at Purdue has attracted so much attention, goes to the University of Pittsburgh, where he will head the newly formed railway mechanical engineering department. From the announcements of this new course it will appear that the railroads in the Pittsburgh district expect to take a very considerable interest in this development, and in all probability we may expect to have from that institution the same interest which has been so characteristic of Purdue University, which Professor Endsley is about to leave. Professor Wallace, from Purdue, who is also attending the conventions this year, has the interest of the M. M. and M. C. B. Associations at heart, so that we may expect the same support from that institution that we have had in the past. Meanwhile the graduates of several of the other important colleges are gradually getting together in small groups as we meet each year, and in at least one case have started at work to build up in their institutions a strong sentiment toward introducing special railway courses and to encourage research work along railway mechanical lines in the institutions from which they received their training. All this argues well in this country for the gradual formation on a strong basis of courses in our colleges which will thoroughly train men for the technical positions on the railroads. On the other side of the border we have developing at McGill University a strong railway department wich has the support of the important railroads in that country.

THE TRACK EXHIBIT

THE exhibits on the Philadelphia & Reading and the Pennsylvania tracks on Mississippi and Georgia Avenues should prove of more than ordinary interest to motive power and car men alike. The locomotives all possess features which mark them as probably the highest development in their respective types, while the fact that the steel box car is the product of the mechanical engineering department of the Pennsylvania Railroad is, in itself, indication that the design is based on careful study.

The eight-wheel or American type locomotive was believed some years ago to have reached the limit of its possible development on American railways, and very few locomotives of this type have been built in recent years, those built being mostly for light work on small railways. The Philadelphia & Reading, however, operates a large number of comparatively light passenger trains on exacting schedules, and eight-wheel engines are well adapted to the work. It is interesting to compare the latest Reading eight-wheelers with locomotives of the same type built for this road in 1883 and 1889. The 1914 engines have a ratio of total weight to tractive effort of 6.23, while this ratio for the 1883 engines is 6.51; the latter have cylinders 18½ in. by 22 in., 61½ in. driving wheels and a working pressure of 140 lb., while the new engines have 21 in. by 24 in. cylinders, 68½ in. driving wheels and 210 lb. boiler pressure. The 1889 engines have a ratio of total weight to tractive effort of 5.48, with 21 by 22 in. clinders, 68½ in. drivers and 160 lb. boiler pressure. Altogether, a survey of the principal data for the three locomotives seems to indicate that the increase in maximum tractive effort in the 1914 engines is obtained mainly by the increase in size.

The three Pennsylvania locomotives are the result of most careful research extending over a period of several years. The experiments carried out in developing the Atlantic type produced a locomotive of such exceptional power that it has been able to haul heavier trains than much larger Pacific type locomotives could negotiate under the same conditions.

While many car men will consider the weight of the Pennsylvania steel box car excessive, it will unquestionably prove to be a strong car capable of withstanding severe usage.

Those who hold to the opinion that weight should be a consideration secondary to strength will probably see in this car the embodiment of many of their ideas; but there are many car department men who are firm in the stand that a car of reasonable strength and considerably less weight than the Pennsylvania car is much more economical. There can be no question but that there are good reasons for this stand, as, while the lighter car may prove less economical in point of maintenance, it will considerably reduce the dead weight hauled in freight trains. The Canadian Pacific car is a good example of a design intended to keep maintenance costs within reasonable limits and avoid excessive operating costs from this cause.

Both the Pennsylvania and the Canadian Pacific cars are of particular interest in the design of roof employed. The Pennsylvania roof has carlines, but eliminates the other members of the ordinary roof frame; the roof on the Canadian Pacific car does away even with the carlines, unless the cap piece covering the roof joints can be considered as such. After all, why should sufficient strength not be provided in the body framing to avoid the necessity of a roof frame? The roof would, under these conditions, be merely a cover to protect the lading, and it would seem that much of the car roof trouble could thus be avoided.

PROGRAM FOR THE WEEK

MASTER MECHANICS' CONVENTION

MONDAY, JUNE 15, 1914

Prayer	9.30 A. M. to 9.35 A. M.
Address of President	9.35 A. M. to 9.50 A. M.
Intermission	9.50 A. M. to 9.55 A. M.
Action on minutes of convention of 1913	9.55 A. M. to 10.00 A. M.
Reports of Secretary and Treasurer	10.00 A. M. to 10.15 A. M.
Assessment and announcement of dues; appointment of Committees on Correspondence, Resolutions, Nominations, Obituaries, etc	10.15 A. M. to 10.25 A. M.
Election of Auditing Committee	10.25 A. M. to 10.30 A. M.
Unfinished Business	10.30 A. M. to 10.35 A. M.
New Business	10.35 A. M. to 10.45 A. M.
Discussion of Reports on:	
Mechanical Stokers	10.45 A. M. to 11.00 A. M.
Revision of Standards	11.00 A. M. to 11.30 A. M.
Safety Appliances	11.30 A. M. to 12.00 M.
Individual Papers on:	
Dimensions for Flange and Screw Couplings for Injectors, by Mr. O. M. Foster	12.00 M. to 1.00 P. M.
Motors for Railway Shops, by Mr. B. F. Kuhn	1.00 P. M. to 1.30 P. M.

TUESDAY, JUNE 16

Discussion of Reports on:	
Locomotive Headlights	9.30 A. M. to 10.15 A. M.
Design, Construction and Maintenance of Locomotive Boilers	10.15 A. M. to 10.30 A. M.
Standardization of Tinware	10.30 A. M. to 10.45 A. M.
Superheater Locomotives	10.45 A. M. to 11.30 A. M.
Use of Special Alloys and Heat-treated Steel in Locomotive Construction	11.30 A. M. to 12.00 M.
Individual Paper on:	
Review of the Work Done by Other Mechanical Organizations, by Dr. Angus Sinclair	12.00 M. to 1.00 P. M.
Subjects	1.00 P. M. to 1.30 P. M.

WEDNESDAY, JUNE 17

Discussion of Reports on:	
Smoke Prevention	9.30 A. M. to 10.00 A. M.
Revision of Standard Efficiency Tests of Locomotives	10.00 A. M. to 10.15 A. M.
Revision of Air Brake and Train Signal Instructions	10.15 A. M. to 10.30 A. M.
Train Resistance and Tonnage Rating	10.30 A. M. to 11.15 A. M.
Fuel Economy	11.15 A. M. to 12.00 M.
Individual Paper on:	
Tests of Schmidt Superheater and Brick Arch, by Mr. H. W. Coddington	12.00 M. to 12.30 P. M.
Resolutions, Correspondence, etc	12.30 P. M. to 12.45 P. M.
Unfinished Business	12.45 P. M. to 1.00 P. M.
Election of Officers, Closing Exercises	1.00 P. M. to 1.30 P. M.

ENTERTAINMENT

MONDAY, JUNE 15

10.30 A. M.—*Orchestral Band Concert.* Entrance Hall, Million Dollar Pier.

3.30 P. M.—*Orchestral Band Concert.* Entrance Hall, Million Dollar Pier.

9.00 P. M.—*Social Gathering and Informal Dance.* Marlborough-Blenheim Hotel.

TUESDAY, JUNE 16

10.30 A. M.—*Orchestral Band Concert.* Entrance Hall, Million Dollar Pier.

3.30 P. M.—*Orchestral Band Concert.* Entrance Hall, Million Dollar Pier.

9.30 P. M.—*Informal Dance, Special Feature Dancing.* By Mr. Evans and Miss Wynn. Entrance Hall, Million Dollar Pier.

FOUND

A release shutter for a camera. Apply at the office of the Daily Railway Age Gazette, Mr. Sherman.

CANE FOUND

A silver mounted cane with initials has been found. Owner may have same by identifying it at the office of Secretary Conway.

LOST

At the card party on Friday a white parasol. Finder please communicate with R. B. Burton, assistant to consulting engineer, Southern Pacific Company, 165 Broadway, New York.

Badges 2761 and 4083 have been lost. Please return to Chairman Harold Brown, of the Enrollment Committee.

"THE DAILY" AS A HEADQUARTERS

In addition to a corps of stenographers, photographers, clerks and those working in the printshop at Philadelphia, the RAILWAY AGE GAZETTE has here in Atlantic City just 18 responsible members of its regular staff. None is employed especially for getting out THE DAILY. The combined knowledge of these 18 men affords a human encyclopedia on railway subjects; and it is at the free disposal of any railway man or supply man who cares to consult it. We are never too busy to stop to answer questions; and no question is too trivial to receive respectful attention. Come one; come all. There are no latch strings. All doors are wide open.

R. S. M. A. ANNUAL MEETING

The annual meeting of the Railway Supply Manufacturers' Association was held Saturday at noon in Convention Hall. There was a much larger attendance than at the annual meeting last year.

President Hageman's annual report consisted of brief remarks to the effect that the affairs of the association were in a most excellent condition. He stated that the attendance of railway men members up to Friday night was 539 as against 489 a year ago and as against 303 at the same time in 1912. The total attendance this year up to Friday night was 2721 as against 2540 in 1912. Of exhibit space 82,434 square feet were taken this year as against 87,360 feet last year. The display of exhibits was a most meritorious one, equalling in interest that of any previous year.

Officers for the year of 1914-1915 were unanimously elected as follows:

President, J. Will Johnson.

Vice President, Oscar F. Ostby.

Members of the Executive Committee: Third District, C. E. Postlethwaite and P. J. Mitchell. Fifth District, George H. Porter. Sixth District, Frank E. Beal.

Votes of appreciation and thanks were given heartily to the retiring president, vice president and to the chairmen and members of the various committees.

A motion to omit the exhibits next year at the conventions was voted down unanimously.

M. M. OFFICERS AND COMMITTEE CHAIRMEN

President—D. R. MacBain, superintendent motive power, Lake Shore & Michigan Southern.

First vice-president—F. F. Gaines, superintendent motive power, Central of Georgia.

Second vice-president—E. W. Pratt, assistant superintendent motive power, Chicago & North Western.

Third vice-president—William Schlafge, general mechanical superintendent, Erie.

Treasurer—Angus Sinclair, New York.

Secretary— Joseph W. Taylor, 1112 Karken building, Chicago.

Executive committee: G. W. Wildin, mechanical superintendent, New York, New Haven & Hartford; C. F. Giles, superintendent of machinery, Louisville & Nashville; F. H. Clark, general superintendent motive power, Baltimore & Ohio; W. J. Tollerton, general mechanical superintendent, Chicago, Rock Island & Pacific; J. F. DeVoy, assistant superintendent motive power, Chicago, Milwaukee & St. Paul, and J. T. Wallis, general superintendent motive power, Pennsylvania Railroad.

CHAIRMEN OF STANDING COMMITTEES.

Revision of Standards and Recommended Practice:—W. E. Dunham, superintendent of motive power and machinery, Chicago & North Western.

Mechanical Stokers:—A. Kearney, assistant superintendent motive power, Norfolk & Western.

CHAIRMEN OF SPECIAL COMMITTEES

Safety Appliances:—D. R. MacBain, superintendent of motive power, Lake Shore & Michigan Southern.

Design, Construction and Inspection of Locomotive Boilers:—T. W. Demarest, superintendent of motive power, Pennsylvania Lines.

Locomotive Headlights:—D. F. Crawford, general superintendent of motive power, Pennsylvania Lines.

Standardization of Tinware:—M. D. Franey, master mechanic, Lake Shore & Michigan Southern.

Use of Special Alloy and Heat Treated Steel in Locomotive Construction:—A. R. Ayers, general mechanical engineer, New York Central Lines.

Smoke Prevention:—E. W. Pratt, assistant superintendent of motive power, Chicago & North Western.

Revision of Standard Efficiency Tests of Locomotives:—C. D. Young, engineer tests, Pennsylvania Railroad.

Revision of Air Brake and Train Signal Instructions:—R. B. Kendig, New York Central Lines.

Superheater Locomotives:—J. T. Wallis, general superintendent motive power, Pennsylvania Railroad.

Train Resistance and Tonnage Rating:—P. F. Smith, Jr., superintendent motive power, Pennsylvania Lines.

Fuel Economy:—William Schlafge, general mechanical superintendent, Erie Railroad.

Subjects:—A. W. Gibbs, chief mechanical engineer, Pennsylvania Railroad.

Arrangements:—D. R. MacBain, Lake Shore & Michigan Southern.

INDIVIDUAL PAPERS

"Dimensions for Flange and Screw Couplings for Injectors," O. M. Foster, master mechanic, Lake Shore & Michigan Southern.

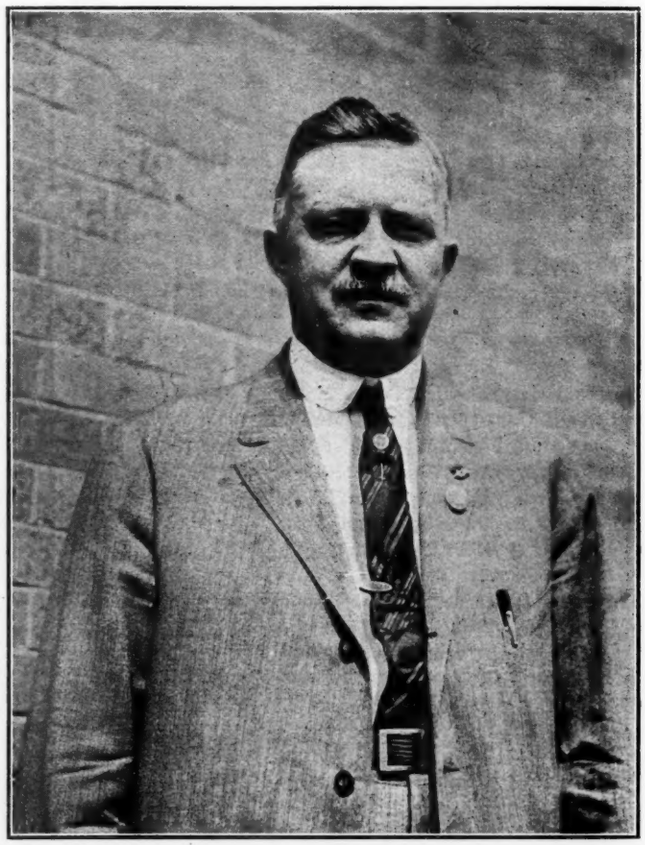
"Motors for Railway Shops," B. F. Kuhn, assistant master mechanic, Lake Shore & Michigan Southern.

"Review of the Work Done by Other Mechanical Organizations," Dr. Angus Sinclair.

"Locomotive Road Tests of Schmidt Superheater and Brick Arch," H. W. Coddington, engineer of tests, Norfolk & Western.

NEW VICE-PRESIDENT OF THE M. C. B. ASSOCIATION

C. E. Chambers, the new vice-president of the Master Car Builders' Association, is the superintendent of motive power of the Central Railroad of New Jersey and was a member of the executive committee of the M. C. B. Association during the past year. Mr. Chambers was born in Augusta, Hancock County, Illinois, in 1865, receiving his education in the public schools of that state. He began railway work in July, 1885, in the bridge and building department of the Chicago, Burlington & Quincy. He later entered the mechanical department, serving as fireman and engineer up to June, 1901. He then entered the service of the Philadelphia & Reading as road foreman of engines, which position he held to June, 1902. At that time he went with the Central Railroad of New Jersey as general road foreman of engines. He was later promoted first to the position of master mechanic and then general master mechanic. He was appointed to his present position of superintendent of motive power January 1, 1910.



C. E. Chambers, the Newly Elected Vice-President of the M. C. B. Association

THE RAILWAY SUPPLY ADVERTISING MEETING

A dinner and meeting of those interested in the buying or selling of advertising, insofar as it affects railway purchasers, was held at the Marlborough-Blenheim, Saturday evening. L. F. Hamilton, advertising manager of the National Tube Co., who acted as chairman, brought out in his preliminary remarks that owing to the attitude of legislators toward railway regulation and the condition of the public mind, which has forced a restriction in the purchase of supplies, it behooved all manufacturers to study every possible phase of advertising in order to obtain the greatest efficiency therefrom. Several angles of railway advertising were presented.

A. F. Ashbacker, manager of the copy service department of the Simmons-Boardman Publishing Co., presented a paper on "Constructive Railway Advertising as evidenced by the Copy Service Idea;" Louis Pellitier, of Machinery, discussed constructive advertising from the viewpoint of machine tool publicity; L. F. Wilson, of the Railway List Co., presented the phase of publicity as evidenced in the list-of-officials publication plan; Albert MacRae, of MacRae's Blue Book Co., spoke on railway advertising as evidenced in the railway supply index-catalogue.

These talks were followed by a round table discussion in which it was clearly brought out that advertising was read and responded to by the rank and file of railway officials. In addition to the above named, the following persons attended the meeting: Arthur Haller and H. J. Downs, of the American Locomotive Co.; E. W. Strong, of the American Vanadium Co.; S. L. Barnes, of the Armstrong Cork & Insulation Co.; W. LeRoy Ketchum, of the Crane Co.; R. B. Woodworth, of the Carnegie Steel Co.; Mason Britton, of the American Machinist; George Slate, of the Boiler Maker; Alex. Smith and W. D. Stanton, of MacRae's Blue Book Co., and Henry Lee, C. R. Mills, F. S. Dinsmore, F. H. Thompson and J. C. Munn, of the Simmons-Boardman Publishing Co.

WISCONSIN ALUMNI DINNER

Wisconsin men have not registered in as large a number as was expected, in response to the notice in Friday's *Daily*. Those who have not done so are requested to leave their names with G. E. Ryder of the Locomotive Superheater Company, or with L. F. Wilson, of the Railway List Company, before noon today. A convenient cafe will be selected for the dinner which will be held at 6.30 p. m.

THE PURDUE DINNER

The annual dinner of the Purdue men in attendance at the conventions was held in the rose room of the Shelburne on Saturday evening. As a mark of appreciation on the eve of his leaving Purdue to take charge of the work in railway mechanical engineering at the University of Pittsburgh, Prof. L. E. Endsley was chosen master of ceremonies, an evening of enthusiastic discussion of university affairs being the result. The following were in attendance:

B. F. Bilsland, General Electric Company; J. W. Cain, Houston, Texas; Charles Ducas, Jacobs-Shupert U. S. Firebox Company; L. E. Endsley, University of Pittsburgh; F. B. Ernst, American Steel Foundries; C. B. Friday, Carnegie Steel Company; Chas. Gaspar, National Malleable Castings Company; W. S. Humes, Transportation Utilities Company; J. H. Jaschka, National Malleable Castings Company; R. W. Keys, New York, New Haven & Hartford; J. M. Lammedee, Railway Review; A. D. Mehegan, Independent Pneumatic Tool Company; B. B. Milner, New York Central; J. R. Mitchell, with W. H. Miner; R. R. Mitchell, Crocker Wheeler Company; J. P. Neff, American Arch Company; H. S. Noble, Pennsylvania Railroad; R. V. Pilliod, undergraduate; L. B.

Enrollment Committee

Top Row, Left to Right—J. A. Stevens (F. W. De Voe & C. T. Raynolds Co.); T. D. Starr (Wm. C. Robinson & Son Co.); F. H. Smith (Gold Car Heating & Lighting Co.); R. F. Moon (Westinghouse Elec. & Mfg. Co.); H. G. Thompson (Edison Storage Battery Co.); L. D. Mitchell (Detroit Graphite Co.); C. H. Gayetty (Quaker City Rubber Co.).

Bottom Row, Left to Right—E. T. Sawyer (Commercial Acetylene Ry. Ltg. & Sig. Co.); G. W. Beaver (Yale & Towne Mfg. Co.); F. E. Beal (Magnus Metal Co.); H. A. Brown (Pocket List of Railroad Officials); F. N. Bard (Barco Brass & Joint Co.); B. A. Smith (W. H. Coe Mfg. Co.).

Rhoads, Jr., undergraduate; F. C. Schaff, Locomotive Superheater Company; E. E. Silk, The Bettendorf Company; L. W. Wallace, Purdue University, and C. B. Woodworth, Baltimore & Ohio.

Next year's dinner will be arranged by a committee composed of E. E. Silk, chairman; J. P. Neff, Prof. L. E. Endsley, R. W. Winterrowd, J. W. Cain and J. M. Lammedee.

THE REGISTRATION FIGURES

In the *Dailies* for Thursday and Friday mornings we published figures for the enrollment on the first two days of the Master Car Builders' convention. The figures in the two tables for 1914 were based on the badge numbers which were issued from the enrollment booth. It was discovered on Friday that some of the badges had been misplaced and that they were not issued in the order of the numbers on the badges.

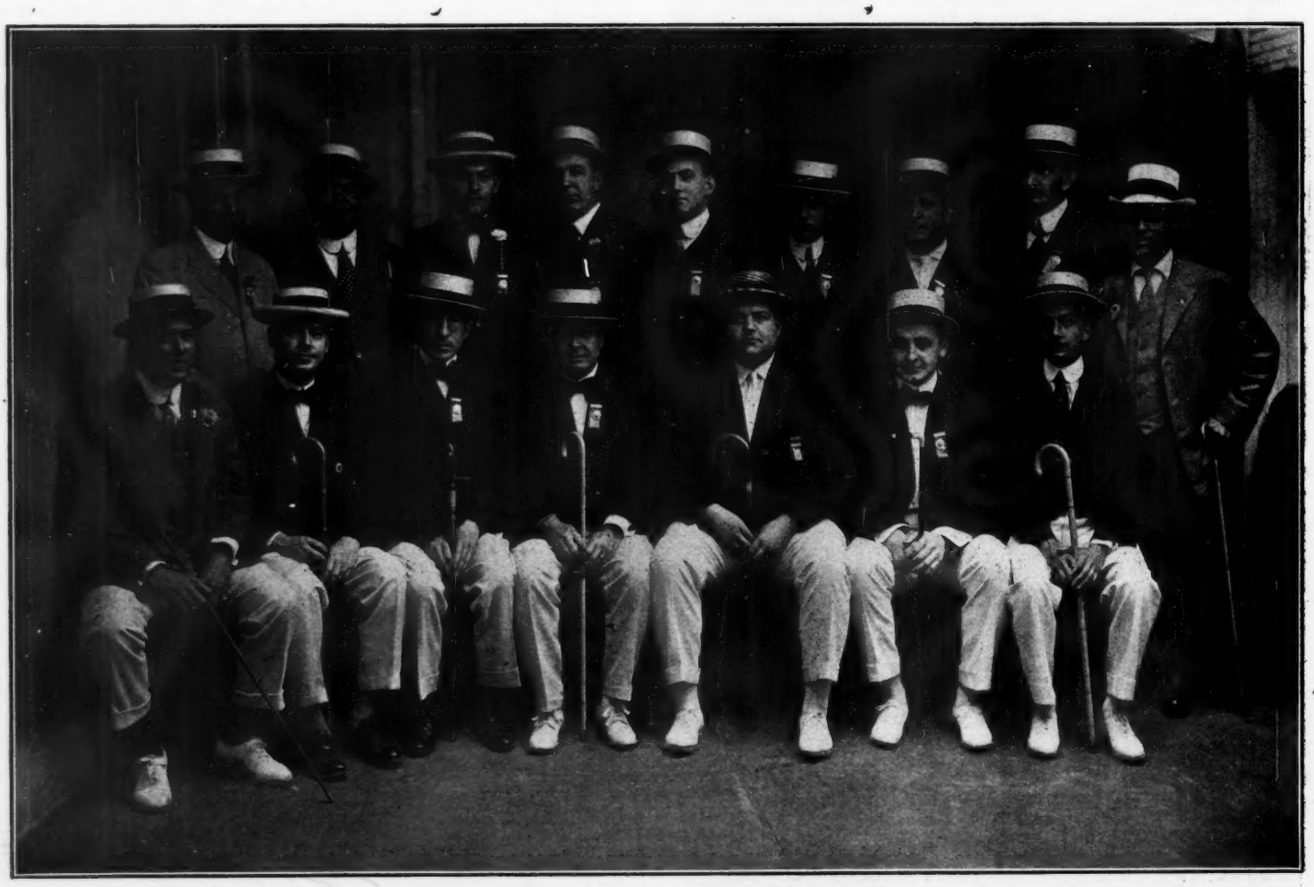
Harold Brown, the chairman of the enrollment committee which has been doing such splendid work this year in enrolling the members, has very kindly had a count of the names in the first three enrollment books made for us and we are enabled through this courtesy to present the following data, giving the correct statistics for the first three days' registration, as compared with the same figures for 1911, 1912 and 1913.

The figures show that 1911 still retains its record as the boomer year but that the total registration this year is greater than in 1912, but 244 less than last year. There is an increase of 80 railroad members over last year, a slight falling off in the number of special guests, a considerable falling off in the number of railroad ladies, and a difference of 203 in the number of railway supply men who are in attendance at the conventions.

COMPARATIVE REGISTRATION FOR THE FIRST THREE ENROLLMENT LISTS FOR 1911, 1912, 1913 AND 1914

	Book No. 1				Book No 2				Book No. 3			
	1911	1912	1913	1914	1911	1912	1913	1914	1811	1912	1913	1914
Members, M. C. B. and M. M.	375	263	374	450	562	294	449	506	612	305	459	539
Special Guests	163	169	141	185	251	278	236	249	331	369	377	360
Ladies, Railroad	254	211	222	199	387	237	289	237	401	256	346	269
Ladies, Supply	287	164	221	197	325	191	252	234	355	213	281	254
Supply Men	1240	1149	1264	1096	1469	1318	1441	1275	1572	1426	1552	1349
Total	2319	1956	2222	2127	3005	2318	2667	2501	3271	2569	3015	2771

THE FRENCH SAHARA RAILWAY.—On May 4, 1914, the new railway line entering the Sahara from Biskra was declared open for traffic to Tuggart. The line is of narrow gage and 135 miles long. It constitutes the first section of what is called the Trans-Sahara Railway. Whether it will ever reach Lake Chad is problematical, but its continuation to Wargla, 100 miles further into the desert, has already been decided.



Transportation Committee

Top Row, Left to Right—L. R. Dewey (American Brake Shoe & Fdy. Co.); William Anderson (The Pantasote Co.); Jos. Markham (Southern Wheel Co.); M. H. Ryan (Pittsburgh Spring & Steel Co.); Don L. Clement (Pratt & Lambert); B. H. Bilsland (General Electric Co.); Geo. A. Graber (Kerite Ins. Wire & Cable Co.); P. C. Jacobs (H. W. Johns-Manville Co.); C. C. Schumaker (Carborundum Co.).

Bottom Row, Left to Right—Dwight E. Robinson (Acme Whitelead & Color Co.); Leroy S. Wright (National Mall. Castings Co.); R. L. Mason (Hubbard & Co.); Wm. B. Hall (Union Ry. Equipment Co.); George Hull Porter (Western Electric Co.); George T. Cooke (Chicago Car Heating Co.); Edwin A. Stillman (Watson Stillman Co.).

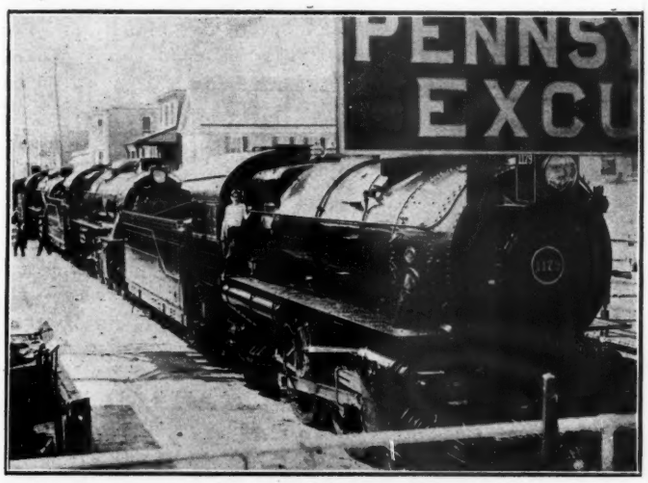
Locomotives and Cars in the Track Exhibit.

Latest Development of American, Atlantic, Pacific and Mikado Types; Pennsylvania Steel Box Car Included

The track exhibit this year should be of unusual interest to both motive power and car department men. The Pennsylvania locomotives on Georgia avenue are the latest product of the mechanical engineer's office of that road and of the Juniata shops at Altoona.

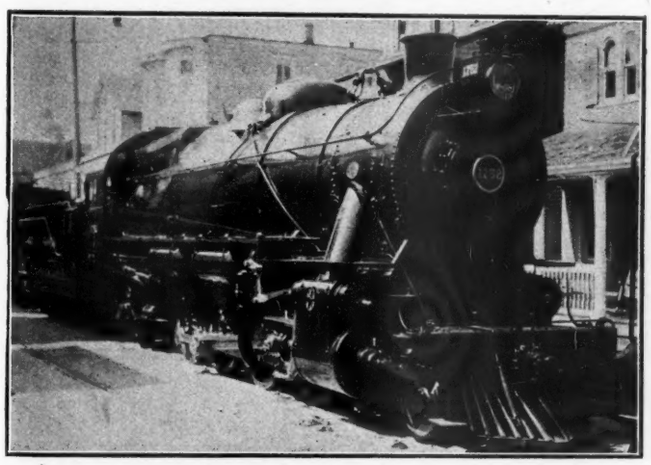
ATLANTIC TYPE LOCOMOTIVE

The Atlantic type locomotive, which stands nearest to the boardwalk, is one of a number now being used in regular



Looking West on Georgia Avenue Showing the Pennsylvania Atlantic, Pacific and Mikado Type Locomotives and the Steel Box Car

service on the heaviest passenger trains of the Pennsylvania. Locomotives of this type are now hauling trains composed of 12 steel cars on the fastest schedules on the New York division. The design is the result of several years of ex-



The Pennsylvania Mikado

perimental work in road service and on the testing plant at Altoona.

The first step in this development was made in the year 1910, when a very large and powerful Atlantic type locomotive was designed and built. This locomotive had no superheater, but was equipped with a brick arch and a large combustion chamber. After careful study and tests of its operation, a second locomotive of the same type was built in 1912, and included a Schmidt superheater, as well as a number of other improvements in design and materials. This engine was placed in regular service and was later given an extended series of tests on the Altoona testing plant. The results of these tests formed part of the report of the committee on superheater locomotives at the 1913 convention of the Master Mechanics' Association and were used as a basis for the present design. The total weight of the Atlantic type locomotive is 240,000 lb. and the weight on drivers is 133,100 lb. This apparently excessive weight on drivers is permissible because the dynamic augment per

PRINCIPAL DATA FOR PENNSYLVANIA LOCOMOTIVES ON THE EXHIBIT TRACK

Type	Atlantic	Pacific	Mikado
Length, pilot to engine buffer	41 ft. 3 in.	49 ft. 2½ in.	79 ft. 6½ in.
Length, pilot to tender buffer	71 ft. 3½ in.	79 ft. 3 in.	49 ft. 6 in.
Wheel base, engine	29 ft. 7½ in.	36 ft. 2 in.	36 ft. 4½ in.
Wheel base, engine and tender	56 ft. 9 in.	64 ft. 8½ in.	64 ft. 11 in.
Driving wheel base	7 ft. 5 in.	13 ft. 10 in.	17 ft. ½ in.
Size of cylinder	23½ in. x 26 in.	27 in. x 28 in.	27 in. x 30 in.
Extreme width	9 ft. 11⅜ in.	10 ft. 7 in.	10 ft. 7 in.
Height of stack	15 ft.	15 ft.	15 ft.
Length of boiler	32 ft. 7¼ in.	40 ft. 5¼ in.	40 ft. 5¼ in.
Length between flue sheets	15 ft.	19 ft.	19 ft.
Greatest diameter of boiler	83½ in. o. d.	89 in. outside	89 in. o. d.
Diameter of smoke box	82 in. o. d.	82 in. outside	82 in. o. d.
Grate area	55.13 sq. ft.	126 in. x 80 in.	126 in. x 80 in.
Heating surface, fire-box	195.7 sq. ft.	288.6 sq. ft.	288.6 sq. ft.
Heating surface, saturated	2660.5 sq. ft.	3746.8 sq. ft.	3746.8 sq. ft.
Heating surface, superheated	787.5 sq. ft.	1730.9 sq. ft.	1730.9 sq. ft.
Heating surface, total	3643.7 sq. ft.	5766.3 sq. ft.	57.66.3 sq. ft.
Number and size of tubes	242—2 in.	237—2¼ in.	237—2¼ in.
Number and size of flues	36—5½ in.	40—5½ in.	40—5½ in.
Diameter of driving wheels	80 in.	80 in.	62 in.
Diameter of trailer wheels	50 in.	50 in.	50 in.
Diameter of truck wheels	36 in.	36 in.	33 in.
Size of driving axle	9½ in. x 13 in.	11 in. x 15 in.	11 in. x 15 in.
Size of trailer axle	6½ in. x 12 in.	6½ in. x 12 in.	6½ in. x 12 in.
Size of engine truck axle	5½ in. x 10 in.	6½ in. x 12 in.	6½ in. x 12 in.
Steam pressure	205 lbs.	205 lbs.	205 lbs.
Weight, working order	240,000 lbs.	309,000 lbs	313,000 lbs.

wheel, due to the counterbalance, at a speed of 70 miles an hour, is less than 30 per cent. of the static weight on drivers. The lightness of the valve gear and crosshead is particularly striking, the weight of the reciprocating parts being less than 1000 lb; the piston rods are hollow, as are also the main crank pins.

The front truck is equalized with the leading drivers and the trailing truck with the rear drivers. The cast steel trailing truck frame acts also as an equalizer. The driving wheel base is 7 ft. 5 in. and the total engine wheel base 29 feet 7½ in.

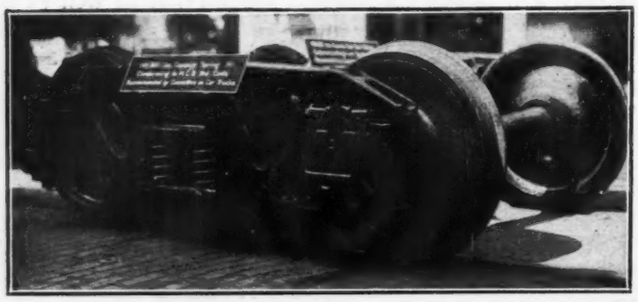
Heat treated alloy steel has been freely used throughout the design and sections have been adopted which take full advantage of its increased strength.

The boiler is of the Belpaire type, fitted with a short combustion chamber. It is 78½ in. in outside diameter at the

front end and 83½ in. at the dome and has 242 2 in. tubes and 36 5⅜ in. superheater flues. The tube length is 15 ft., and there is a tube heating surface of 2660.5 sq. ft. and a total evaporating heating surface of 2856.2 sq. ft. The 36 unit superheater has 721 sq. ft. of heating surface, making the total equivalent heating surface 3937.7. sq. ft.

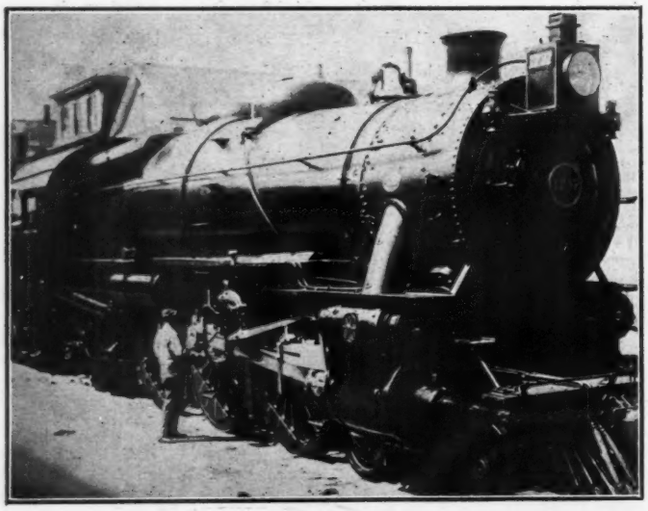
The firebox is 72 in. by 110½ in., providing 55.13 sq. ft. of grate area, and has a brick arch, carried on three water tubes. The locomotives are fitted with screw reverse gears.

A new form of tender truck is employed. It has a substantial side frame made either of a steel casting or forged steel; a heavy cast steel transom is bolted to the frame and each journal box has two spring hangers supporting coil springs, one on either side of the pedestal. A spool binder is used on the pedestal, which also has removable wearing plates on either side of the jaw.



140,000-lb. Capacity Freight Truck, M. C. B. Truck Committee

The tractive effort of the locomotive is 29,400 lb., the cylinders being 23½ in. by 26 in., the driving wheels 80 in. in diameter and the boiler pressure 205 lb. The piston valves are 12 in. in diameter, have a travel of 7 in. and 1 5-16 in. outside lap. The engine truck wheels are 36 in. in diameter and have 5½ in. by 10 in. journals and the driving journals



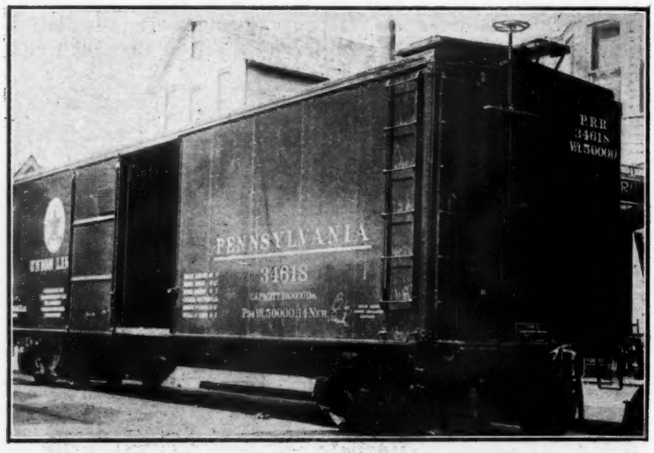
The Pennsylvania Pacific Type Locomotive

are 9½ in. by 13 in; the trailing wheels are 50 in. in diameter. The tender has a capacity of 7000 gal. of water and 13 tons of coal, and the total weight of engine and tender in working order is 398,000 lb.

PACIFIC AND MIKADO TYPES

The locomotive standing directly behind the Atlantic is of the Pacific type and directly behind it stands a Mikado. The same ideas of refinement in design and materials have been carried out as far as possible in all three engines. This is particularly noticeable in the valve gear. The interchangeability of parts has been carried out as far as is practicable on the Pacific and Mikado types. The Belpaire boilers are exactly the same and the trailing and tender truck arrangements are the same on the three locomotives. The frames are reinforced over the driving boxes.

The Pacific and Mikado types, as well as the Atlantic type, have superheaters. The Pacific type has 80 in. drivers, 27 by 28 in. cylinders, a weight of 200,000 lb. on drivers and a total weight in working order of 309,000 lb. The Mikado weighs, in working order, 313,000 lb., of which 250,000 lb. is on the drivers The cylinders are 27 in. by 30 in., the driving wheels 62 in. in. diameter and the working pressure 205 lb.



Pennsylvania Steel Box Car

70-TON TRUCK

Directly behind the Mikado stands the 140,000 lb. capacity truck which conforms to the recommendations of the Master Car Builders' committee on car trucks and was described in the DAILY of June 11.

View Through the Door of the Pennsylvania Steel Box Car Showing the Steel Roof and Wood Lining

STEEL BOX CARS

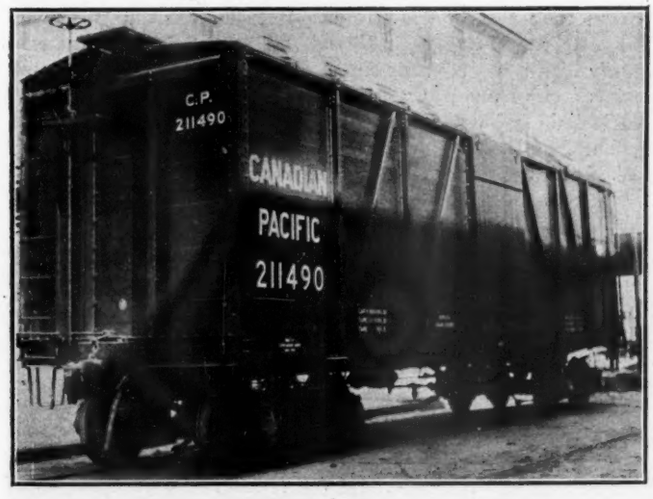
Last in line in the Pennsylvania exhibit is a steel box car of 100,000 lb. capacity. The car has a wood floor and ⅞ in. wood lining and weighs 50,000 lb. The inside length is 40 ft.

5 in., the inside width 8 ft. 10 in., the inside height 9 ft. 1 in., the height at the eaves 12 ft. 10 in., and the width at the eaves 9 ft. 2 in. The length over end sills is 42 ft. 6 in. The car is equipped on one end with the experimental M. C. B. coupler, Type A, and on the other end with the Type B coupler, and with trucks of the same design as that referred to above. The truck centres are 32 ft. 6 in. apart.

The center sills are of the fishbelly type and are built up of two ⅜ in. pressed U or channel shaped sections, placed back to back and spaced 2⅞ in. apart; they extend from end sill to

The Pennsylvania Exhibit, Looking East on Georgia Avenue

end sill, and are 20 in. deep for a distance of 8 ft. 11 in. on either side of the center line of the car. There is a ⅜ in. top cover plate, 2 ft. 2 in. wide, extending the full length, while 4 in. by 4 in. by 9-16 in. angles reinforce the sills on the inside at the bottom. At these points there are cantilevers, forming the principal transverse carrying members, and built up of pressed members placed back to back, with the necessary cover plates. The body bolster sections are also of the U shape, placed 7⅜ in. back to back. There are



Canadian Pacific Steel Frame Box Car Equipped with an All-Steel Roof Designed by R. W. Burnett, General Master Car Builder

no longitudinal stringers and the transverse floor supports are pressed U sections, 6¾ in. deep. The end sills are pressed and have a vertical flange extending for about 8 in. up the end of the car and are rivetted to the end sheets.

The side sills consist of 6 in. by 4 in. by ⅜ in. angles, with the 4 in. flanged horizontal and turned inward, and rivetted to the back there is a 4 in. by 3½ in. by ⅜ in. bulb angle. Diagonal braces of pressed U section extend from the outer end of the end sills to the center sills at the bolster.

The side plate is a 6 in. by 4 in. by ⅜ in. angle. There are no braces employed in the body framing and the posts are of U section pressed in the sheets. There are two end posts one on either side of the center line of the car with an additional post, having a wood filler, at the center. Nailing strips are provided for the wooden lining. The side sheathing is ⅛ in. thick and the end sheathing 5-16 in. thick.

The roof sheets are approximately 3-32 in. thick and are spot welded to carlines of U section and 3-16 in. thick. There are no purline or ridge pole. A ⅛ in. space is provided between the roof sheets and the side sheets where the former turn down over the eaves, to allow ventilation.

CARS ON THE READING TRACKS

At the Boardwalk end of the Philadelphia & Reading tracks on Mississippi Avenue is a steel frame box car of 80,000 lb. capacity, of the horizontal sheathed type in extended use on the canadian Pacific. This car weighs 36,000 lb. and has a structural steel frame with channel center sills and Z-bar side framing. It is 36 ft. long, 8 ft. 6 in.

Seventy-Ton Car Equipped with Barber Trucks

wide, and 8 ft. high, inside measurements. This car is equipped with a steel roof which is the design of R. W. Burnett, general master car builder of the Canadian Pacific. It is of arch shape and is without carlines, purline or ridge pole. The sheets are formed so that they interlock at the edges and over the joint on the outside there are cap pieces of U section, extending the width of the car and providing a certain amount of ventilation through their ends.

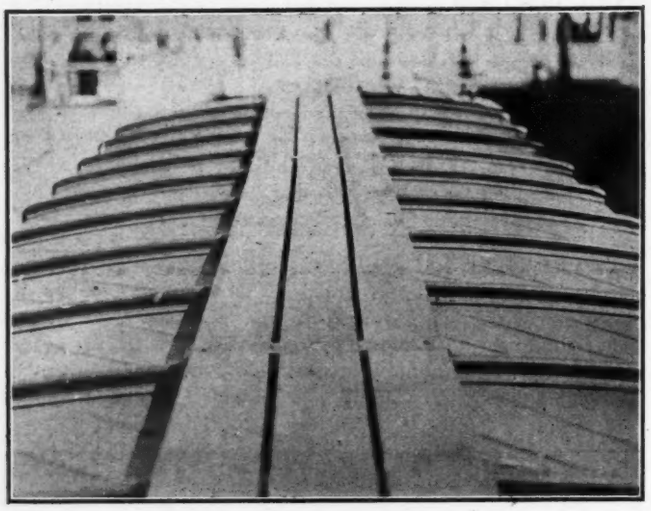
Next to the Canadian Pacific car is a Lehigh Valley hopper car equipped with Hewitt trucks. There are no side bearings, the weight being suspended directly on the trucks. Next to this is a hopper car of 140 000 capacity, weighing 57,700 lb., and fitted with Barber double acting trucks.

THE READING LOCOMOTIVE

Last on the Reading tracks stands one of that road's new eight-wheel locomotives. These engines mark what is probably the highest development of the American type locomotive and are giving excellent results in service, much of the

Reading passenger traffic being of a nature for which this type is well suited. They were designed under the direction of S. G. Thomson, superintendent of motive power and rolling equipment, and built by the Baldwin Locomotive Works.

These engines weigh, in working order, 173,500 lb., of which 120,000 lb. rests on the drivers. The total weight of the engine and tender is 320,000 lb. The driving wheel base is 9 ft. and the total engine wheel base is 24 ft. 9 in.



Outside View of the Burnett Roof

Anthracite coal is used as fuel and the firebox is 114¼ in. by 108¼ in.

The boiler is of the Wootten type, 60¾ in. inside diameter at the front end and has 208 1¾ in tubes and 22 5¼ flues, 10 ft. 5 in. long. A Schmidt superheater is used and the working pressure is 210 lb. With 68½ in. driving wheels and 21 in. by 24 in. cylinders, the tractive effort is 27,800 lb., contrasting with 14,600 lb. for locomotives of this type built for the Reading in 1883.

The locomotives have 11 in. piston valves with 7 in. maximum travel, driven by Walschaert valve gear, which is controlled by the Ragonnet reversing mechanism. The tender capacity is 7000 gal. of water and 10½ tons of coal.

An Interior View of the Canadian Pacific Car Showing the Roof Construction

THE NORTH WESTERN LUNCHEON

Twenty-five employes and ex-employes of the Chicago & North Western met at Barnay's for luncheon on Saturday, at 1 p. m. A permanent organization was effected, to be known as the Chicago & North Western Club. Robert Quayle, the general superintendent of the motive power and car departments, was elected president; H. T. Bentley, superintendent motive, vice-president; W. H. Bentley, secretary-treasurer. The executive committee is composed of Mr. Quayle, B. R. Moore, J. A. McRae, E. W. Pratt, Hugh Montgomery, E. Dawson and W. E. Dunham. The idea is to hold an annual reunion each year in order to renew old friendships.

After the luncheon Mr. Quayle gave one of his characteristic talks, commenting on the type of men that had been developed on the North Western. He looks upon all of the boys as his children and follows their progress closely whether they remain with the road or go elsewhere.

There are upwards of 200 employes of the C. & N. W. who have left the railroad to go with other roads or into railway supply companies, who are likely to attend the convention from time to time and it is hoped that these men will be drawn closer together and thus keep alive the spirit of loyalty to their alma mater, as it were.

BILLY SUNDAY AND THE RAILROADS.

On April 19, Billy Sunday, the baseball evangelist, closed a seven weeks' campaign at Scranton, Pa. It is estimated that the attendance at the meetings was 759,000 and that 18,961 were converted, or "hit the trail," as this experience is now commonly termed in the communities where Sunday has held meetings.

It is simply impossible for one who has not gone into a community in which Sunday has been working to realize the remarkable effect which he has upon it. For instance, the writer of this article was attending a dinner conference with a number of railroad officers at Scranton and had not been with them more than half an hour before he was signed up as an honorary member of the Lackawanna Men's Bible Class. The illustrations give some slight idea of the part which railroad men took in the marching demonstration at the end of the campaign. Between 25,000 and 30,000 men from Scranton and the nearby towns took part in this parade. It required about two hours for it to pass the reviewing stand and, as stated in the *Scranton Daily News*, it was made up of "billionaires keeping step with miners, merchants with clerks, bosses with laborers, while 100,000 packed the sidewalks to cheer on the paraders."

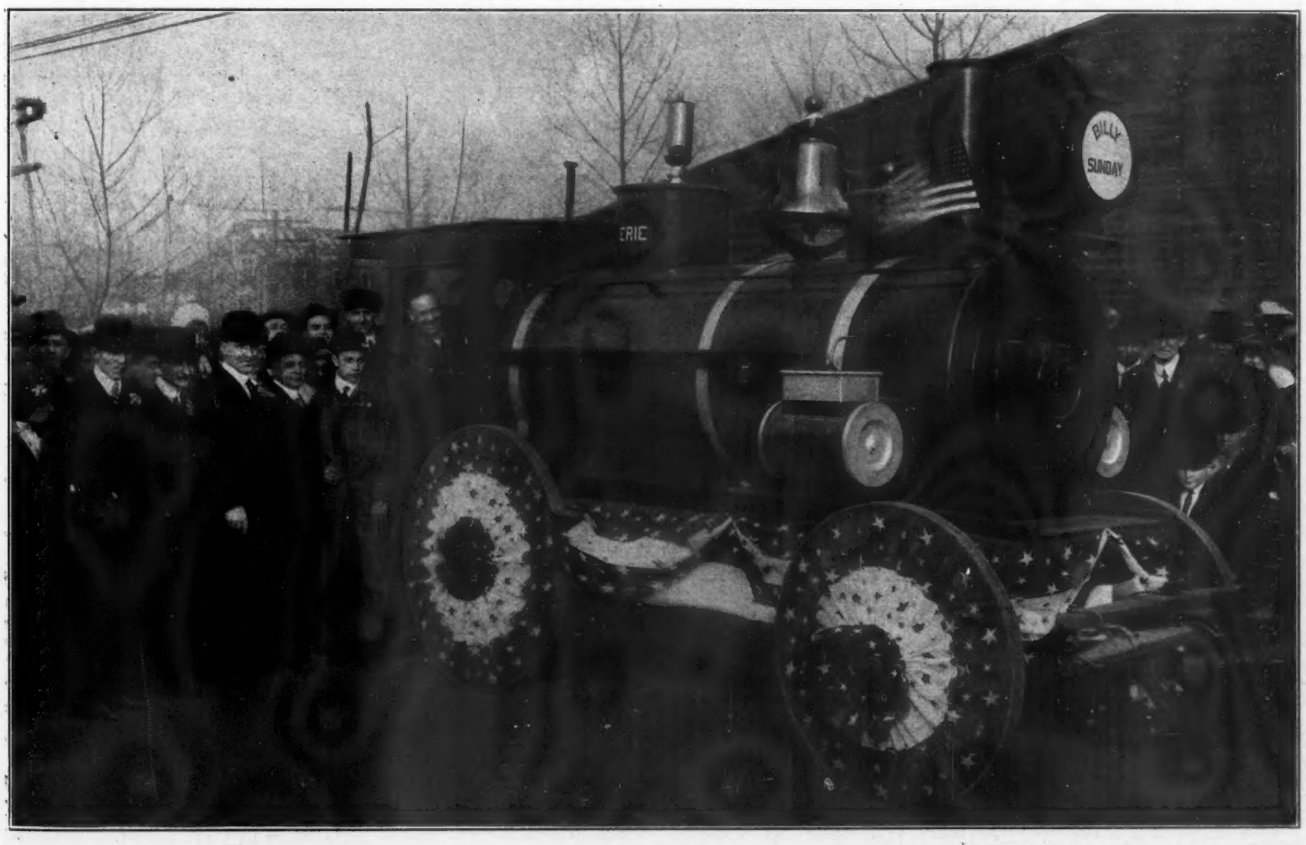
The Erie Railroad delegation was headed by Master Mechanic W. S. Haines and Division Superintendent J. J. Mantell. The men from the transportation and shop departments of this delegation carried "Safety First" banners and were preceded by "Temperance Engine No. 999," which is shown in the illustration. It was one of the biggest hits of the parade, the idea being based on the famous "Brewers' Horses" song, which was frequently sung during the meetings and in which the following sentence occurred: "I am a temperance engine don't you see, and the brewers' big horses can't run over me."

The Lackawanna delegation consisted of between 1,500 and 1,600 men, of which 900 were from the shop and engine houses, 200 from the offices, 250 were engineers and firemen, 25 were conductors and trainmen, and the remainder were made up of miscellaneous employees from the track and bridges and buildings departments, and other branches of the service. This did not include the coal mining delegation which marched separately. As may be seen from the photograph, the delegation was led by H. C. Manchester, superintendent of motive power and equipment, with J. C. Fritts, the master car builder, on his right and George Durham, the master mechanic, on his left. In the two lines directly back of them and in front of the banner are P. N.

Place, superintendent; F. H. Reagan, superintendent of the locomotive shop; F. M. Nowell and W. O. Smith, trainmasters; S. S. Riegel, mechanical engineer; M. C. M. Hatch, superintendent of fuel service; B. H. Davis, road foreman of engines; J. M. Stone, assistant road foreman of engines; G. I. Purcell, general yardmaster; S. S. Stone, chief train despatcher, and Joseph Grieser, general foreman of the locomotive shop. E. M. Rine, the general superintendent, had expected to head the delegation, but was prevented because of an important business engagement.

Since Billy Sunday left Scranton a Lackawanna Men's Bible Class has been organized, with George Durham, the master mechanic, as president. It has been growing rapidly and at the end of May numbered practically 1,000 members, including the auxiliary membership of 150 more men from Stroudsburg, Pa., which has since been formed into a separate class.

What Billy Sunday Did to the Lackawanna at Scranton



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Billy Sunday at the Throttle of the Erie "Temperance" Engine

A BOOST FOR SAN FRANCISCO IN 1915

The farther west you go the more enthusiastic the boosters. With the Panama Exposition in San Francisco next year, we are getting a fair example of the real thing from our brothers on the "West Coast." One trembles to think of what might happen if we of the cold and conservative East were to catch the habit and try to match the boys out West in the boosting game. That they are dreadfully anxious to entice the conventions to Frisco next year is indicated by the accompanying cartoon which reached us by special delivery on Saturday morning. It is the work of one D. P. Kellogg, shop superintendent of the Southern Pacific at Los Angeles. Apparently he was assisted by C. H. M. Just who C. H. M. is we are unable to say at this writing. Whether it is Kellogg's chief clerk, his stenographer, the master boiler maker or one of the Yuma (Humor) Indians we are not even able to guess. It might even be a "greaser" in captivity.

Dan is quite a humorist; the more you study his work of art the more you have to grin. And while you are still grinning, and at the risk of breaking the thread of this boost for Frisco, let us call your attention to a spot on the map designated as Parsons on the Katy. The heiroglyphics labeled "Bro. Bill" represent a brother of D. P.'s, who is S. M. P., of the Katy, and is the proud father of a pair of almost brand new twins.

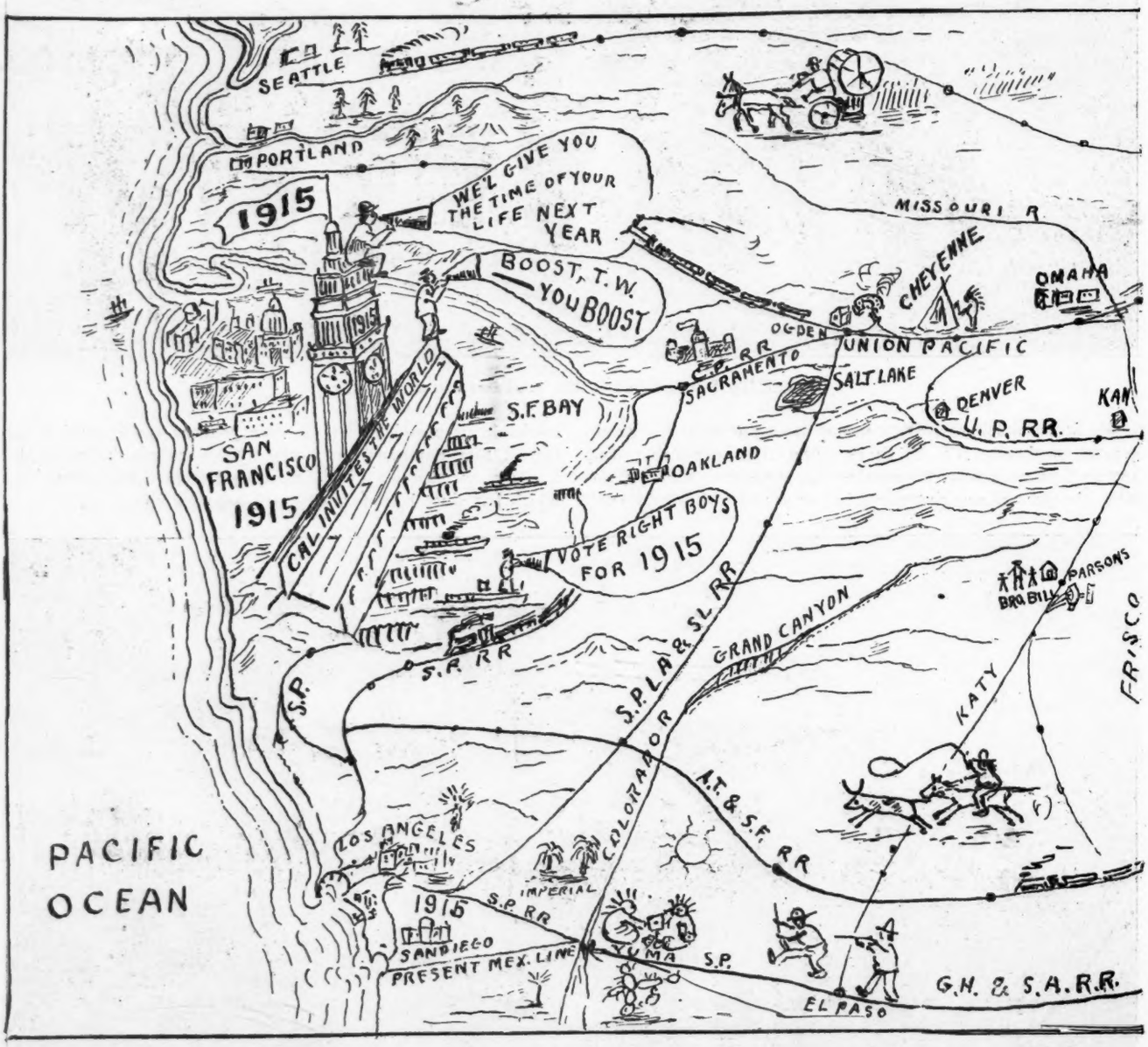
Now to get down to brass tacks. Here is a copy of the letter we received from Booster Kellogg:

"Under separate cover I am mailing you a black and white copy of a cartoon which I hope you will find available for use in one of the daily editions of the GAZETTE at Atlantic City.

"The Western contingent of the Master Mechanics' and Master Car Builders' Associations think, of course, this is an opportune time to hold at least one convention in one's life on the West Coast, and the cartoon is designed as an invitation supplementing some of the preliminary work along this line last year.

"In case it is not rulable to print other than technical matters I am enclosing some blue prints which you will probably be able to use to advantage in your booth at Atlantic City. I was unable to attend the convention this year, but sent my 'big boss.'"

The chart, which looks like one of the maps in vogue



San Francisco Cordially Invites the M. C. B.'s and M. M.'s to Hold Their 1915 Conventions at the Exposition

about the time Columbus discovered America, needs some explanation. The key as supplied by Friend Kellogg—may the saints preserve him—reads something like this:

EXPLANATIONS.

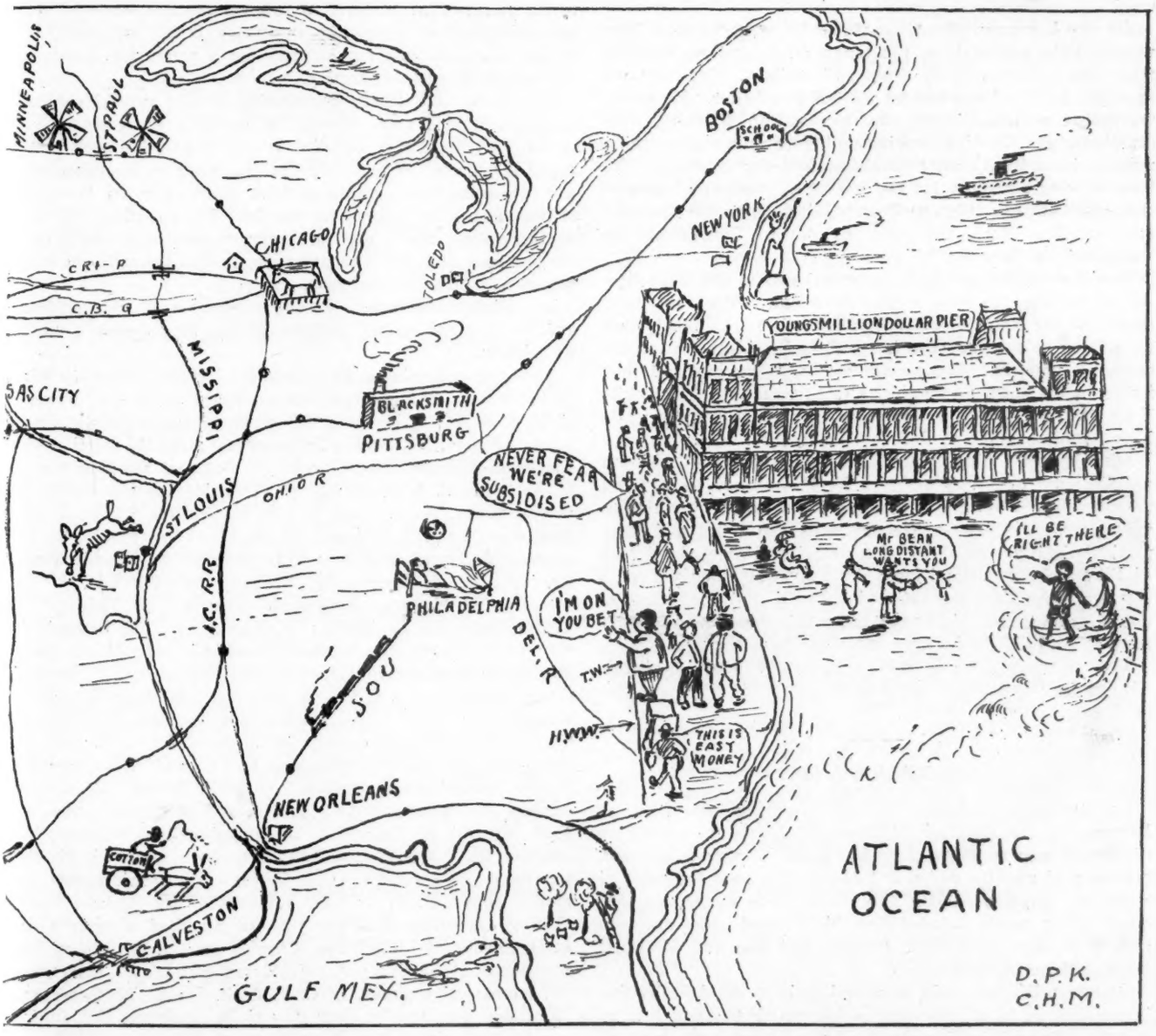
Mr. Bean in swimming is superintendent motive power of the Santa Fe.
T. W. stands for Mr. Heintzelman, general superintendent motive power, Southern Pacific.
H. W. W. means Mr. Watkins, master car builder, Southern Pacific, Los Angeles.
"Brother Bill"—superintendent motive power, of "Katy," and is the above mentioned dad of the double headers.
Dutch wind mills indicates St. Paul and Minneapolis. (We don't catch the connection, Dan.)
Indians are those of Yuma and Cheyenne.

We wonder how the Pennsylvania boys will like the fact that you have left them off the map entirely and that the B. & O. is the only road that serves the "Smoky City." What's the matter, D. P.? Can't you get a pass over the Pennsy? Poor diplomacy! Don't you know that they have a heavy vote in the M. C. B. and M. M. Associations? This is no reflection on the B. & O. boys, however. Barnum made a new record as president of the M. C. B.'s and Frank Clark distinguished himself Friday night as an expert in picking the winners in the tango, maxixe, Texas Tommy trot competition.

Will Sam Vauclain stand for your josh on the "Sleepy City"? Don't you know that Bok and Lorimer have put Philadelphia on the wide awake map again and that Bill Schlafge got a whopper from Sam's Eddystone works—that is, he will if the people outside of Philadelphia will wake up enough to make it possible to take it to Susquehanna.

Who told you the Bull Moose was in captivity in Chicago? Don't you know that Teddy is loose again down east and that Lyman Abbott's Outlook offices once more resemble a barker's stand in front of a Ringling Brothers' side show? Wake up, D. P.! Things have been going at a lively rate in Atlantic City, but the telegraph wires still keep us posted about things on the outside. Even the Atlantic City Review has a daily news service from Hoboken. Once in a while we even hear from Los Angeles in spite of the fact that Wright of the Smart Set says it is as dead as a door nail. They tell us that Nat Goodwin's pier is the only bright spot in Los Angeles and you left it off the map.

What have you fellows done to the Santa Fe? Did Bean approve of the advertising copy before you sent it in? The road as you have shown it begins nowhere and doesn't end anywhere. Shame on you! With the New York Central boys



San Francisco Cordially Invites the M. C. B.'s and M. M.'s to Hold Their 1915 Conventions at the Exposition

working hand in hand with the Pennsylvania crowd and only Jim De Voy and Pratt throwing bricks over the fence which divides the St. Paul from the North Western, it is hardly in good taste for you to disturb the "dove of peace." At least you might have controlled your feelings and merely got off a good joke on the bonus system. Johnny Purcell will feel real bad about all this.

We have had a nasty time on our staff about that thing down near Florida. Is it a crocodile, an alligator, a man-eating shark or a new specimen which Teddy discovered and brought back from Brazil? Is it really after the fellow on the step ladder who is picking the fine apples off the tree?

But this is enough of serious stuff. All week we have been writing light editorials to the tango music and we couldn't resist this opportunity of being real serious. Now that we have got it out of our system we feel lots better. However, we realize that the break may get us into difficulty. We can almost see Watkins looming up before us in a threatening manner immediately after breakfast Monday morning. We have already arranged for the use of a bomb-proof protection, and both our "big chief" and Editor Dunn have hurried back to New York, the latter to sail to Europe on the Vaterland on Tuesday.

Now for the boost which we mentioned in the head line. All of us want to visit Frisco next year. With the hard times and the watchful waiting policy it is quite unlikely that we will be able to pay the fare unless President Wilson repeats his assertion that we are really prosperous and thus forces better business conditions to come about. Meanwhile if we go at all it will have to be on an expense account. We have heard so much of Barbary Coast, the Puddle Dog, the Black Cat and "that Powell Street" (chicken alley)—you see we have got your number, D. P.—that, if we can get the company to pay the damages we will surely be with you next year. Yes, D. P., we are with you heart and soul, particularly if you will give your promise to be at the corner of Ellis and Powell and lasso Anthony Comstock with one of your "sure shot serpentines." That is, all have O. K.'d the trip except the "big boss," and maybe he will. We can't seem to get hold of him long enough to "pop the question."

The printer's devil is calling for more copy, so here's wishing you and yours good luck, Dan. Hope to see you next year!

CORNELL DINNER

On Friday evening over fifty Cornellians assembled at Barnays for the ninth annual dinner of the alumni association of Cornell men attending the conventions. Dexter S. Kimball, professor of machine design at Sibley College, was the guest of honor and came to Atlantic City especially to attend this banquet. Other guests included Geo. M. Basford, chief engineer, railway department, Jos. T. Ryerson and Son and Lawrance Fitch, Milwaukee, Wis.

Professor Kimball spoke at some length on the difficulty that is encountered by a university in attempting to train men to suit the extremely wide range of demands that come from all classes of engineers. The field of engineering is extending with such rapidity, and specialties are developing within it so frequently, that it has become almost impossible for any university to provide practical courses that will produce graduates who are particularly suited to each. Even if circumstances would permit it to be done today, tomorrow would bring new specialties and require revision of the work given in those already provided. Financial reasons, if no others, forbid such constant expansion and revision in most colleges

It has thus seemed best to give a training which deals chiefly with fundamentals, and attempt to give the graduates the best possible training in the foundation of each broad class of engineering at Cornell. It is then comparatively easy for them to acquire the special training in their selected specialty either in special schools or in practical work, and provides a solid foundation on which to base it.

This practice applies to railway mechanical engineering as well as to many other equally important fields, and during the past eight years no special courses in this subject have been provided. Men who have graduated from Cornell and gone into the service of railways or railway supply companies have shown that their fine engineering foundation has allowed them to quickly become expert in their chosen field.

Professor Kimball urged closer co-operation between the railway alumni and the faculty, with the object of greater benefits to the railways in the form of original research work by the university, and of giving the students a better understanding of the conditions and requirements for a successful career in railway mechanical engineering.

Mr. Basford, in briefly commenting on the general subject of better trained men, showed the necessity for constructive rather than destructive criticism of the technical schools, and urged the alumni of experience to get closer to the educators and help solve their common problem of fitting young men for railway and other engineering service. He said that it is up to the college men going into railroad service to work out the problems of railroad organization, so that the railroads will attract and hold the best men.

Mr. Fitch spoke briefly on the importance of this subject and the possibilities that meetings of this kind present toward its solution.

Those present included the following: Dexter S. Kimball, '82; J. F. DeVoy, '88, assistant superintendent of motive power, C. M. & St. P.; F. H. Park, '92, Westinghouse Air Brake Co.; L. A. Shepard, '92, Scullin-Gallagher Co.; H. M. Norris, '93, Cincinnati-Bickford Tool Co.; W. E. Dunham, '95; Supervisor M. P. & M., C. & N. W.; B. P. Flory, '95, superintendent of motive power, N. Y. O. & W.; R. L. Gorden, '95; Standard Steel Car Co.; J. F. Schnepel, '95, Scullin-Gallagher Co.; C. P. Storrs, '95, Storrs Mica Co.; J. H. Mitchel, '96, Pressed Steel Car Co.; W. S. Reeder, '96, Pressed Steel Car Co.; J. N. Mowery, '99, Keystone Lubricating Co.; F. N. Nellis, '99, Westinghouse Air Brake Co.; W. T. Ransome, '99, Bettendorf Co.; E. A. Averill, '00, Standard Stoker Co. Inc.; H. G. Macdonald, '00, Standard Steel Car Co.; L. V. Grantier, '01, motive power inspector, B. & O.; E. C. Batchellar, '02, Motch & Merryweather Co.; A. S. Lewis, '02, Chicago-Cleveland Car Roofing Co.; C. D. Young, '02, engineer of tests, P. R. R.; R. S. Cooper, '03, Independent Pneumatic Tool Co.; H. A. Rogers, '03, Woven Steel Hose & Rubber Co.; F. L. Sivyer, '03, Northwestern Malleable Iron Co.; F. N. Bard, '04, Barco Brass & Joint Co.; T. F. Crawford, '05, Ingersoll-Rand Co.; P. K. Dayton, '05, Niles-Bement-Pond; Mr. Harrington, '05, Harrison Safety Boiler Co.; A. N. Darlow, '06, superintendent of motive power, B. & S.; Geo. T. Johnson, '06, Buckeye Steel Casting Co.; Geo. A. Post, Jr., '06, Standard Coupler Co.; L. H. Snyder, '06, Jos. Dixon, Crucible Co.; H. H. Gilbert, '07, Pressed Steel Car Co.; A. W. Morse, '07, W. E. Ricketson, '07, mechanical engineer, C. C. C. & St. L.; E. W. Sellstrom, '07, Dahlstrom Metallic Door Co.; C. B. Goodspeed, '08, Buckeye Steel Castings Co ; R. R. Harrison, '08, Watson-Stillman Co.; C. F. Meyer, '08, Landis Machine Co.; E. A. Stillman, '08, Watson-Stillman Co.; C. W. F. Coffin, '12, Franklin Railway Supply Co.; J. H. Thomas, Standard Paint Co.; R. G. Colburn, Harvard; Lawrence Fitch, Yale, '98; Geo. M. Basford, Mass. Inst. of Tech.; E. C. Brant, and Geo. F. Ladd.

MOSCOW TO TOKIO IN ELEVEN DAYS.—Beginning on May 13 a weekly express train service was commenced whereby a person can travel from Moscow to Vladivostock without changing cars. The train will reach Vladivostock on Saturdays, connecting with steamers to Tsugaru and thence by rail to Tokio (altogether 45 hours), making the trip from Moscow to Tokio in 11 days.

ADDITIONAL MASTER MECHANICS' REGISTRATION

Allen, C. W., Shelburne.
Allen, G. S., Retired, P. & R., Shelburne.
Barclay, F. B., S. M. P., Ill. Cent., Shelburne.
Barrett, C. D., A. E. M. P., Penna., Chalfonte.
Basford, Geo. M., C. E. R. R. Dept., Jos. T. Ryerson & Son, Marlborough-Blenheim.
Bingamon, C. A., E. of T., Phila. & Reading, Albermarle.
Burns, Jno., M. M., Canadian Pac., Chalfonte.
Cross, C. W., M. M., N. Y. C. Lines, Lexington.
Diehr, C. P., M. M., N. Y. C. & H. R., Westminster.
Doud, Willard, S. E., Belt Ry. of Chicago, Dennis.
Fagan, J. L., M. M. D. & R. G. R. R.
Gill, C. A., C. M. M., B. & O., Clarendon.
Gillis, H. A., M. E., Seaside.
Graham, Chas., National Graphite Lubricator, Lexington.
Gray, Henry F., M. M., Wabash Pittsburg Terminal, De Villa.
Greenwood, H. F., Gen. Foreman, N. & W., Traymore.
Hang, Harry, M. M., Brownstown & Middletown, De Villa.
Hankins, F. W., General Foreman, Cumberland Valley, Iroquois.
Hawkins, B. H., Supt. McCord Mfg. Co., Traymore.
Hess, Geo. F., S. M., K. C. So., Marlborough-Blenheim.
Irvin, J. J., S. M. P., H. S. Kerbaugh, Inc.
James, Chas., M. M., Erie.
Kapp, N. F., S. M. P., R. F. & P., Marlborough-Blenheim.
Keenan, C. E., Worth Bros. Coatesville R. M. Co., Traymore.
Kinney, W. H., M. M., N. Y. O. & W., Traymore.
Laux, J. P., M. M., Lehigh Valley, Sterling.
G. H. Likert, Formerly U. P., Traymore.
Little, J. C., M. E., C. & N. W., Shelburne.
Machesney*, A. G., Detroit Lubricator Co., Lexington.
McGuire, J. J., M. M., B. & O., Chalfonte.
Martin, H. W., Superintendent, Int. Jewett Kinzua & Riterville, Westminster.
Meade, P. J., M. M., A. C. L., Chalfonte.
Miller, F. E., M. M., B. & O., Haddon Hall.
P. H. Minshull, M. M. N. Y. A. & W., Traymore.
Montgomery, Wm., M. M., Central R. R. of N. J.
Nash, J. H., S. M. P., Ill. Cent. R. R.
Parish, Le Grand, Amercan Arch Co., Marlborough-Blenheim.
Pearce, J. S., M. M., N. & W., Chelsea.
Randolph, V. C., M. M., Erie R. R.
Reynolds, O. H., Wm. Jessup & Son, Dennis.
Rhodes, L. B., So. Mgr., Standard Heat & Ven. Co., Chalfonte.
Riley, G. N., Supt. Motive Power, McKeesport Connecting, Marlborough-Blenheim.
Scanlan, N. B., M. M. Maryland & Penna., Shelburne.
Snell, E. J., M. M., N. Y. C. & H. R., Lexington.
Sprowl, N. E., S. M. P., A. C. L., Alamac.
Thayer, F. C., G. R. F. E., Southern, Arlington.
Thompson, W. T., American Road Machinery Co., Chalfonte.
Thompson, M. M., N. & S. S., De Villa.
Wagstaff, Geo., American Arch Co., Chalfonte.
Walsh, F. O., S. M. P. & E., Ga., Strand.
Walsh, J. F., M. E., Chalfonte.
Wanamaker, H., S. S., N. Y. C. & H. R., Traymore.
Warnock, Harry R., S. M. P., Western Maryland, Grand Atlantic.
Werst, C. W., Wks. Supt., Lima Loco & Mich. Co., Marlborough-Blenheim.
Withrow, P. C., M. Eng., Denver & Rio Grande, Alamac.

ADDITIONAL MASTER CAR BUILDERS' REGISTRATION

Barclay, F. B., S. M. P., Illinois Central, Shelburne.
Kapp, W. F., S. M. P., R. F. & P., Marlborough-Blenheim.
Laux, J. P., M. M., Lehigh Valley, Sterling.
Muhlfeld, J. E., Special Representative, Various Railroads, Marlborough-Blenheim.
Nash, J. H., S. M. P., Illinois Central.
Schwartz, C. L., A. G. M., St. Louis Refr. Car Co., Alamac.

ADDITIONAL REGISTRATION OF SPECIAL GUESTS

Augier, F. J., Supt. Timber Preservation, Baltimore & Ohio, Lexington.
Augier, R. M., Lexington.
Barnstricker, G W., Foreman, B. & O., Tennessee.
Bender, W. W., Signal Dept. Gen. Foreman, C. R. R. of N. J., Haddon Hall.
Best, J. I., C. C. M. P., P. & R., Shelburne.
Bowden, J. F., S. M. P., B. & O., Chelsea.
Carey, J. T., Supt., Norfolk & Western, Traymore.
Crawford, M. R., Foreman, Central R. R. Co. of N. J., Louvan.
Farrington, Robert J., Gen. Piece Work Foreman, P. & R., Albermarle.
Gillespie, H. G., M. M., C. & O., Lexington.
Gwyn, L. R., Ass't to Pres., American Express, Chatham.
Haupt, H. G., L. V., Traymore.
Henry, H. B., Ass't to Director to Purchases, Southern Pacific, Chelsea.
Herliby, J. J., Gen. Foreman, B. & O., Chelsea.
Hibbs, C. E., Asst. Road Foreman Engines, Penna. R. R.
Johnston, H. W., Supervisor Shop, Machinery & Tools, D. L. & W., Arlington.
Kuehner, A., Foreman McClare Shops, B. & O., Lexington.
Lindemann, W., P. A., Wm. R. Grace & Son, St. Charles.
Morningstar, E. E., Draftsman, B. & O., National.
Murray, F. H., M. M., Erie.
Rhett, E. M., Electrical Engineer, Central of Ga., Chelsea.
Scatchard, H., General Storekeeper, Norfolk & Western, Strand.
Telford, Elliott, Marlborough-Blenheim.
Weis, F. A., M. P., C. R. R. of N. J., Dunlop.

LITTLE INTERVIEWS

There is only one exhibitor from abroad. That's W. H. Cook, managing director of the Fastnut Ltd. Company of London. To meet him, to know him, to chat with him, is to vote him intensely interesting, strikingly congenial and delightfully English. Asked for an opinion on the railway conditions in England compared with those in this country, Mr. Cook said:

"Railway conditions in England are better than they are here. At least we are paying dividends, while business is

"Our Friend From Abroad"

up to normal. Passenger traffic is increasing; but suburban traffic has been hard hit by the Motor Omnibuses and Trams. The tubes have amalgamated with the London General Omnibus Company, much to the detriment of the latter. At least reports show that their shares have gone down."

Prof. L. W. Wallace, assistant professor of car and locomotive design at Purdue, had his first experience last week as an attendant at a Master Car Builders' Convention. Asked for an expression of opinion concerning his impressions, he said:

"The convention has deeply impressed me in three ways: First, in the personnel of the convention; the intelligence, manhood and comradeship marked upon almost every face is indeed striking. And when one takes note of these characteristics of the personnel he is not surprised to see the second noticeable thing, and that is the dispatch and

thoroughness with which the business of the convention is conducted. The third noticeable thing was the very able manner in which the several committee reports were presented. The thoroughness with which the work of the committee was done was impressive.

"I have never observed better committee work, than that done by the several committees reporting to the Master Car Builders' Association.

"It is indeed unfortunate that great numbers of the laity of this country cannot visit these railway conventions and there observe the character, the earnestness and intelligence of the men concerned with the mechanical departments of our American railways. Should this be possible I believe many who now criticise and sneer would become proud acclaimers.

"We of Purdue, for a number of years have deemed it a part of our preparation for efficient and timely teaching, along railway lines, to be thoroughly familiar with the proceedings of the two conventions that meet here and also to attend them just as regularly as possible. We make frequent use of the proceedings in our class rooms, so that the Purdue man knows something about these great railway associations and the work they do before leaving us.

"In addition to this we always stand ready to assist the two associations in any way possible. Hence to that end we are now planning to enlarge our locomotive laboratory in order that we may accommodate locomotives having eight or ten drivers. We also expect in the near future to change our present locomotive from a slide valve engine with small cylinders to one with piston valves and large cylinders. After this change is made we shall make tests to determine how much increased power is secured, because of this change. The engine uses high degree super heat.

"Work on the flat spot machine is progressing. We have already obtained some very interesting results. When the work is completed we shall hope to show how the blow delivered to a rail by reason of the wheel having a flat spot varies with the speed, the load and the size of the spot. The results so far have indicated to us what to expect, but we are withholding any publication of results until more data is accumulated and checked. We are obtaining results that I am sure will be of very great interest and value to all railway men.

"Our course in railway work does not include only those features pertaining to design and mechanical operation, but we are giving considerable attention to the problems of the shop superintendent and the master mechanic. Such questions as labor troubles, piece work systems, routing of material, the purchasing of material, the handling of men and various kindred subjects are being impressed upon the student. This we do in order that he may have a broad view of the railway business and that he may appreciate some of the duties that his shop superintendent has to face each day.

"Thus by constantly studying the tendencies in railway work, by attending these conventions, by instructing our students as to the problems involved in handling men, and by co-operating with railway men in every way possible, we are endeavoring to turn out men, who will in time become active members of these associations. If we do this we shall be content and I am sure we shall receive the approbation of the good men that compose the membership or these organizations.

Professor A. J. Wood of Pennsylvania State College is enthusiastic over the prospects for the coming college year. In reply to an inquiry as to the number of engineering students in his institution, he said:

"We have about a third of the total attendance at the college. This year we had about 950 students taking courses leading to engineering degrees. I believe there are but five other colleges in this country that have more engineering students."

"That doesn't sound half bad," we said, "but what are you doing along railway mechanical lines?"

"We are graduating an increasing number of young men who enter railway service, or who go with railway supply companies. They seem to hold their own all right. You see, we are trying to develop some common sense in teaching engineering principles and about a man's worth to others when he graduates.

"Yes, we are hammering hard on the fundamentals. What is the good of pure theory if you cannot use it?"

"What do you think about this question of the college man and the railroads," we asked.

"The trouble is lack of sympathy on both sides and a wrong notion about the other man's problem. This little stir up you fellows had a short time ago in your Mechanical Edition is doing good already."

"How can the colleges help the railroads?" was our next question.

"You know that the main purpose of a flour mill is to make flour. So the main purpose of a college is to grind out a good usable product in the form of well trained brains.

"But another way to help is by co-operation in testing and experimental work. Colleges have costly equipment lying idle part of the time. There are certain things we can do at the colleges which you can not do on the railroads. For example, suppose you want to test some new insulating materials for cars, or to find out what the present rate of heat transmission is in refrigerating cars. Who is going to do this highly scientific, yet very practical piece of work? If done carelessly, much expense is sure to be needlessly incurred. We have a thermal testing plant, which is working day and night for most of the year in the interests of the industries. To duplicate the conditions available for testing would take some $6000 and two years of hard work to test out the plant.

"I could mention a dozen like problems. You see my point! The college can be of help in a special way. But don't forget that the railroads can also help the colleges. But that's another story.

"We had a good thesis this year by men going into railroad service on the design of a new track indicator, and another one on the graphical determination of a train schedule.

"Come up and see us some day."

Fred H. Colvin, managing editor of the American Machinist, is spending a few days at Atlantic City visiting the exhibits and getting in touch with his railroad friends. He has just returned from a several months' trip abroad. He sailed from New York on the day of the big blizzard last winter and had considerable trouble in getting from East Orange to New York; the ship was held 17 minutes in order that Mr. and Mrs. Colvin might go aboard before it sailed. For three days an 80-mile an hour gale raged. Asked about his impressions of English railway practice Mr. Colvin said:

"In England they have not gone crazy on either large grates or long valve travel. Their engines are, however, very economical on the basis of fuel per ton mile. If my recollection serves me right, the largest locomotive in England has only 34 sq. ft. of grate surface and the average is probably somewhat nearer 25 sq. ft.

"The passenger service is particularly good as far as the time of running is concerned and the fact that trains are almost invariably on time; one reason for this being the comparatively short distances. Because of the small clearances the equipment is much smaller than in this country and it is often surprising to see a small train with two locomotives.

"One of the most serious drawbacks to the passenger service is the long station stops. This is largely because of the custom of having collectors take up the tickets in each compartment before passengers leave the carriages. While this

is not the universal custom it is in vogue on several of the large lines.

"The method of looking after baggage is the best tribute to the honesty of the traveling public which could possibly be devised. Each passenger picks out his own baggage and there is nothing to prevent the first comer helping himself very liberally, as no one checks anything. Porters act as baggage agents by pasting the proper labels on your bag showing its destination, but it is sometimes necessary to enter the luggage van and pick it out to be sure of having it when you want it.

"Freight traffic is particularly interesting to Americans. The largest coal car I saw had a capacity of 12 tons, four-wheel cars being used almost exclusively. There are very few box cars, goods being protected from the weather by waterproof sheets which fasten over the top. Freight service, however, is quite rapid, and as sidings, coal storage bins, etc., have been arranged to accommodate cars of this size, it would be very difficult to change. Railway shops are as a rule much larger than our own, for the reason that they build nearly all of the equipment used. The Great Western shops at Swindon employ about 13,000 men. The London & Northwestern shops at Crewe are probably the largest and include blast furnaces and rolling mills for producing all of their own material."

THE GOLF TOURNAMENT

The world is full of lucky guys
Who spring to sudden fame,
As by some turn of Fortune's wheel
They make themselves a name.
Steve Brodie jumped from Brooklyn bridge
And lived to tell the tale;
And Jonah—back in Bible times—
Was swallowed by a whale.
But of the lucky pups who live
Today beneath the sun,
Bill Huey brings the bacon home—
He made a hole in one.

Yes, made a hole in one, my boys.
The drive was straight and true,
The hole before he made in ten,
But that is nothing new.
The papers marvel at his skill,
And say he is the class,
They haven't heard he thought the drive
Went over in the grass.
The world is moving just the same,
The sun is just as bright;
The darkness falls—the stars come out—
Yes, everything is right;
But Bill is in a world apart,
His life has just begun,
The lucky slob! He won the match,
And made a hole in one.

—R. T. L.

Bill Huey wasn't there in person, that is, the original Bill Huey, nor was a single hole made in one, to the best of our knowledge and belief, but there were there numerous Bill Hueys; "lucky beggars," as their friends, and particularly their opponents, called them. And we do not know of a hole made in one, but some holes were made in record scores and the makers of such scores were, as usual, branded as the lucky ones. And so the story of the great golf tournament of yesterday ran—the same old story of good playing with bad luck and of some—let us say indifferent—playing, with good luck attending.

On the picturesque links of the Country Club of Atlantic City the first annual tournament of the Railway Supply Manufacturers' Association occurred yesterday. The day, as far as the weather and temperature was concerned, was perfect, save for now and then a light shower of rain, which simply tended to steady the nerves of the seasoned golfer and temper the ardor of the youthful devotee of the game. And it all resulted just as expected, for Local Weather Forecaster Judgkins, of Atlantic City, had told us to proceed with the arrangements for the gala event of yesterday—that he would guarantee weather that would suit even the most fastidious of golfers. And Mr. Weather Man made good.

They journeyed to the Country Club mostly in automobiles, some by the electric cars, but none of the conventionites walked. The Master Car Builders' Association, the Master Mechanics' Association, the Railway Supply Manufacturers' Association were all represented in numbers, and with their friends and guests constituted a grand total attendance that was noted with keen pleasure by those who had suggested the event some time ago. That the tournament will be an annual affair in connection with the entertainment features of the conventions was assured yesterday.

Play commenced promptly at 8.30 o'clock in the morning and continued all day. There were two tournaments played in conjunction with each other—one a contest for the low medal (handicap) score and the other for the successful blind score. The home club handicaps of the players furnished the handicaps for the low medal contest, and in the case of unattached players the golf committee of the entertainment committee of the supply men, represented by E. H. Bankard, Jr., decided the handicap figure. Mr. Bankard devoted the entire day to the undertaking—recording the entries, starting off the players in foursomes or pairs, keeping the scores and tabulating the results—and his efforts in so successfully planning and carrying out the day's events were most appreciated by all. The courtesies extended by the officers and employes of the Country Club of Atlantic City were also sincerely felt.

G. H. Musgrave, the winner of the low medal score, with the good gross score of 86, a handicap of 15 and a net score of 71, is connected with the Star Brass Manufacturing Com-

Country Club of Atlantic City—Scene of Yesterday's Tournament.

pany, and is stopping at the Dennis. Mr. Musgrave was the winner of the handsome silver cup which has been on exhibition on the Million Dollar steel pier during the past several days.

Mr. Musgrave, the winner of the principal event, said last evening: "Of course I am pleased to be returned one of the winners. I have played twice before on the links here, once last year and once this year. My game was consistent throughout. Going out this morning I was lucky in finding the traps not once. Coming in I was in trouble three times, but got out in good shape. I am a member of the Commonwealth Country Club of Boston, with a club handicap of 13. I greatly enjoy the game."

Horace Baker, general manager of the Queen & Crescent Railway, and George T. Johnson, mechanical engineer of the Buckeye Steel Castings Company, Co'umbus, Ohio, were tied for the second prize, another handsome silver cup. They will play off the tie probably this afternoon. Mr. Baker is a member of the Cincinnati Golf Club at East Hill, Cincinnati, and greatly enjoys the game.

The foursome, consisting of "Ned" Sawyer, formerly runner-up in the Western Golf Association amateur championship; "Joe" Bole, of Cleveland, Ohio state champion; "Bob" Gwalthney, champion of Wilmington, N. C., and "Tom" De Rossett, champion of Ocean City, Maryland, was probably the foursome with the largest gallery. Mr. Sawyer's 74 and Mr. Bole's 76 gross scores were the best played and most applauded scores of the tournament.

Many of the members of the McBarmma (note well the letters composing this name and what they stand for) Golf Club, responded to the call of the tournament committee, and played in yesterday's event. Among them were noticed Messrs. Sanderson, Barnum, Bush, Street, Bankard, Mowery, Vaughan and Conwell.

There were eight players tied for the two blind score prizes, two handsome silver cups. The winners were decided last night by lot and proved to be as follows: First prize, H. H. Vaughan, Canadian Pacific; second prize, J. R. Ellicott, Westinghouse Air Brake Company.

It may be of interest to note that the average gross score of the 81 players who finished the entire 18 holes was 107.4.

The following were the scores:

Player.	Gross.	Handicap.	Net.
G. H. Musgrave	86	15	71
H. M. Perry	112	25	87
W. W. Rosser	112	25	87
T. W. Aishton	104	22	82
M. K. Barnum	108	25	83
G. A. Post, Jr.	98	25	73
B. P. Flory	117	25	92
F. H Whitney	118	25	93
J. McE. Ames	112	20	92
R. B. Kendig	150	25	125
Alex Turner	129	25	104
C. J. Donahue	104	24	80
Bertram Berry	94	15	79
C. S. Hawley	108	20	88
A. H. Sisson	103	15	88
J. R. Elliott	109	25	84
L. B. Sherman	104	14	90
S. W. Midgley	131	25	106
F. M. Nicholl	116	24	92
Geo. H. Snyder	188	25	163
C. L. Bardo	93	15	78
C. H. Young	97	15	82
Geo. T. Johnson	96	24	72
C. D. Young	117	25	92
H. H. Gilbert	99	17	82
J. H. Mitchell	100	21	79
F. B. Ernst	112	25	87
L. E. Jones	115	20	95
J. S. Sheafe	127	25	102
Horace Baker	97	25	72
Wm. Schlafge	140	25	115
J. C. Anderson	100	15	85
V. Van Schlegell	101	15	86
S. G. Rea	102	16	86
S. C. Edson	105	25	80
R. M. Brower	100	25	75
T. C. De Rossett	90	11	79
D. E. Sawyer	74	0	74
R. H. Gwalthney	89	5	84
I. K. Bale	76	0	76
R. H. Wyld	92	15	77

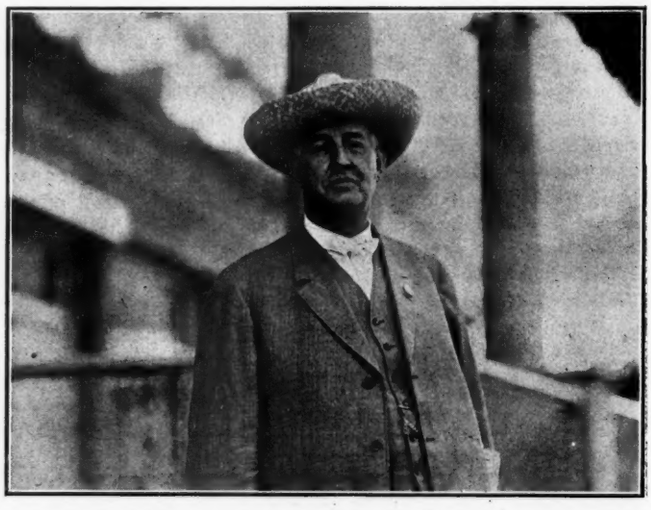
Player.	Gross.	Handicap.	Net.
D. R. MacBain	115	25	90
E H. Walker	109	25	84
E. T. Hendee	93	12	81
E. T. Bankard	105	20	85
H. H. Vaughan	98	14	84
D. F. Mallory	84	8	76
J. M. Deemer	99	16	83
A. E. Goodhue	109	24	85
G. W. Ristine, Jr.	95	20	75
L. O. Cameron	102	24	78
N. S. Reeder	113	25	88
R. P. C. Sanderson.	97	17	80
C. F. Street	98	18	80
W. L. Conwell	97	11	86
C. H. Hardy	99	24	75
F. O. Darnell	117	20	89
C. N. Replogle	109	20	89
J. N. Mowery	118	25	94
O. C. Lippincott	114	25	89
J. D. Purcell	106	18	86
W. M. Wilson	99	18	81
H. E. Chilcoat	98	10	86
J. B. Wright	116	24	92
F. M. Nellis	112	24	92
J. W. Coleman	106	24	82
W. A. Hall	154	24	130
W. A. Wood	113	20	91
H. A. Hegeman	102	20	82
G. M. Crownover	115	25	90
H. A. Gray	107	13	94
A. MacRae	106	21	85
J. W. Robb	99	16	83
C. R. King	103	15	88
C. R. Ellicott	103	18	85
Frank Hedley	105	14	91
C. H. Williams, Jr.	106	20	86
A. C. Moore	116	20	96
B. E. Pollak	102	16	86
L. Rockwell	119	25	94
G. A. Nichol	104	25	79

Conventionalities

The original "Lutz-Old Man" is here again this year.

Sam Mullinix and wife arrived at the Dennis Saturday. Sam is still rooting for the Rock Island at Silvis and hasn't changed a bit.

Friends of Frank B. Harrison, president of the Harrison Dust Guard Company, will be sorry to learn of his inability to attend the convention this year. He has just gotten out of the hospital, and is slowly recovering from a serious operation.



C. A. Schroyer, of the North Western, Wearing the Latest in Headgear

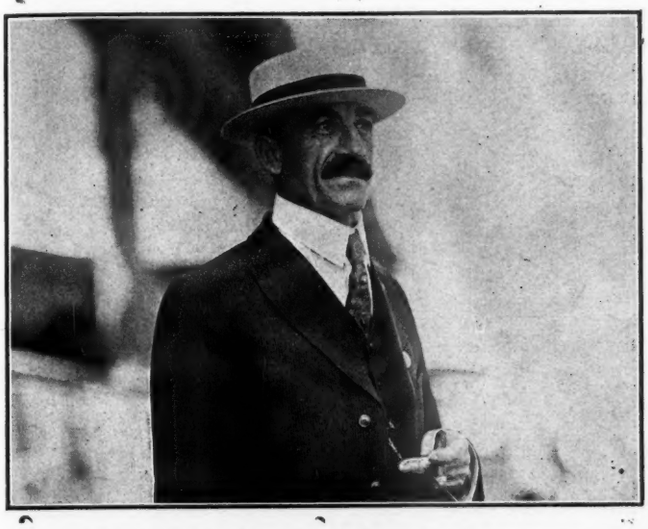
C. E. Barba is attending the conventions in a new capacity this year. Until recently he was assistant chief draftsman of the Pennsylvania at Altoona, but has since been promoted to the position of assistant engineer, reporting to W. F. Kiesel, Jr.

F. C. Schultz, Chief Interchange Inspector, Chicago

J. T. Luscombe, master mechanic of the Baltimore & Ohio, is attending both conventions this year. Mr. Luscombe after a short experience in the railway supply field, has quite recently re-entered the railway service at Parkersburg, W. Va.

George W. Lyndon, Secretary of the association of manufacturers of chilled car wheels, and his daughters, Misses Madeline and Marion, are among the convention visitors. This is the first year the young ladies have been here, and they are enjoying the occasion very much.

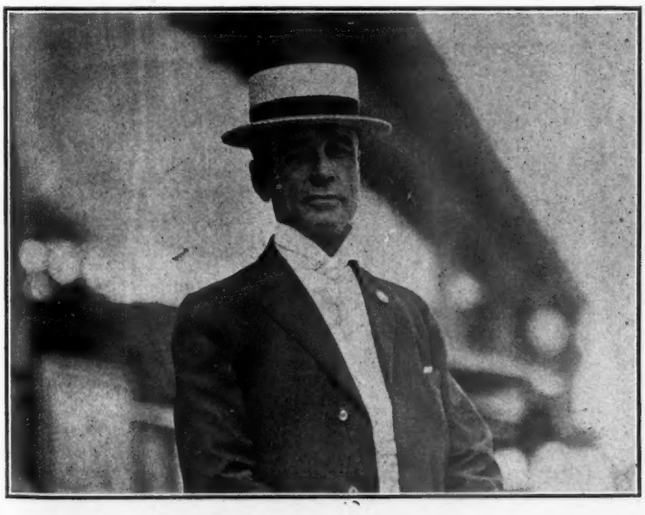
Mrs. Walter H. Coyle, accompanied by her sister, Miss Clara Kane, arrived Saturday and are stopping at the Marlborough-Blenheim. It will be remembered that Mr. Coyle



R. B. Rasbridge, Superintendent Car Department, Philadelphia & Reading

was recently elected a vice-president of the Franklin Railway Supply Company.

Quite a number of the convention visitors took advantage of the week end to run over to New York. Among them were G. M. Crownover, superintendent of motive power of the Chicago Great Western, and his wife; also W. E. New, master



E. C. Totten, Division General Car Foreman, New York Central

mechanic, Kansas City Terminal—and Silas Zwight, general master mechanic of the Northern Pacific.

Mrs. Stanley W. Midgeley is unable to attend the convention this year because of the seven months old boy who is named after his dad, and we regret to say that is said to look a good deal like him. Mrs. Midgeley attended ten consecutive conventions but has missed the last two. "Midge" is pretty nearly as daffy over the boy as Fogg was over his two years ago.

W. H. V. Rosing, special engineer of the Frisco, has spent a very considerable amount of time on the road during the past few months and reports that conditions all along the Frisco are in particularly good shape. The crops in southern Oklahoma are being harvested and indications are that from this time on the road will have all of the business of this sort that it can possibly handle.

E. A. Hawks, formerly district manager for the Beaver Dam Malleable Iron Company, has been made special representative of the railway department of the Dahlstrom Metallic Door Company, manufacturers of steel interior car trim. Mr. Hawks' headquarters are at Detroit. Although the company has no exhibit this year Mr. Hawks is attending the convention.

William St. John, of the Safety Car Heating & Lighting Company is bemoaning the fact that insofar as he can recall, this is the first time in his 24 years' attendance that he has not been able to celebrate his birthday while the convention was in session. He was born on June 18; and he will be

Wm. H. Hall, Chief Car Inspector, Central Railroad of New Jersey

just 74 the day after this meeting closes. He says that he is going to stop counting after this.

A. L. Whipple and Mrs. Whipple, who have been very active in the business and social activities of this meeting for many years, arrived on Friday. In the Saratoga days the convention bride was the one exhibit that touched all hearts. Mrs. Whipple was the June bride of 1903.

Mr. Whipple is here in the interest of the Oakley Chemical Company for which he is a special representative.

Dr. W. N. Polakov spent Saturday and Sunday in Atlantic City. He has just accepted a position on the New Haven as superintendent of power plants and will make his headquarters at New Haven, reporting directly to General Manager Bardo. His jurisdiction will cover the power up to the time that it enters the line. Mr. Polakov has for the past two years been connected with Day & Zimmerman, operating, consulting and construction engineers.

The boiler inspection department of the Interstate Commerce Commission is well represented this year. Chief Inspector Frank McManamy has been here several days. Assistant Chief G. P. Robinson and Alonzo G. Pach arrived Saturday. The inspectors who are present are A. C. Breed, of Peoria, Ill.; E. L. Gibbs, of Florida; A. P. Gluick, of

Kansas City; Wm. Holton, of Virginia; W. S. Jackson, of Cleveland, and F. P. Pfahler, of Washington.

S. L. Bean, mechanical superintendent of the Atchison, Topeka & Santa Fe Coast Lines, believes that business conditions in the West are tending toward a marked improvement. The car movement on the Coast Lines has been increasing and the traffic in oranges has been particularly good.

H. C. Manchester, superintendent of motive power of the Lackawanna, has been doing some pretty interesting stunts at Scranton during the past year, but the one in which he probably takes the most pride is the scheme which he has for cleaning the engines with a mixture of crude oil, water and compressed air. This does away with the laborious and expensive process of wiping and cleans the engine far better than was possible by the former process.

The Philadelphia & Reading had in its service for 54 years Geo. S. Allen. He was master mechanic at Tamaqua, Pa., and was one of the first members to join the Master Mechanics' Association. He has been retired for several years, but always attends the convention. His son, Chas. W. Allen, who was also in the service of the Reading for several years, but who is now vice-president and general manager of

George F. McLaughlin, Superintendent Armour Car Lines

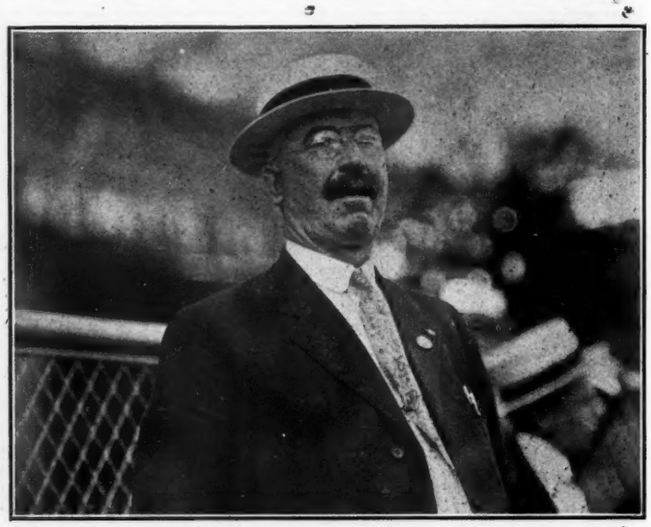
the Reading Specialties Company is here in the interest of that company.

G. W. Denyven, of the Parkesburg Iron Company has lost his hat. When you see Geo. Thomas 3d, J. H. Smythe and Denyven of that company together and consider the allotment of natural head covering the loss of Denyven's hat seems to be the working of the great law of compensation. Thomas and Smythe each need two hats. Had it been otherwise and Thomas and Smythe lost their hats one might argue the working of the other law "To him who hath shall be given and from him who hath not shall be taken away."

Editor Dunn was compelled to leave before the Master Mechanics' convention this year because of the necessity of getting back to New York in time to meet his wife, who is coming on from Chicago and will sail with him on the Vaterland on Tuesday morning. He is looking forward to an interesting and delightful trip through England, Germany, Switzerland and France and will return on the Aquitania about the middle of July. This is the first Master Mechanics' convention that he has missed for a good many years.

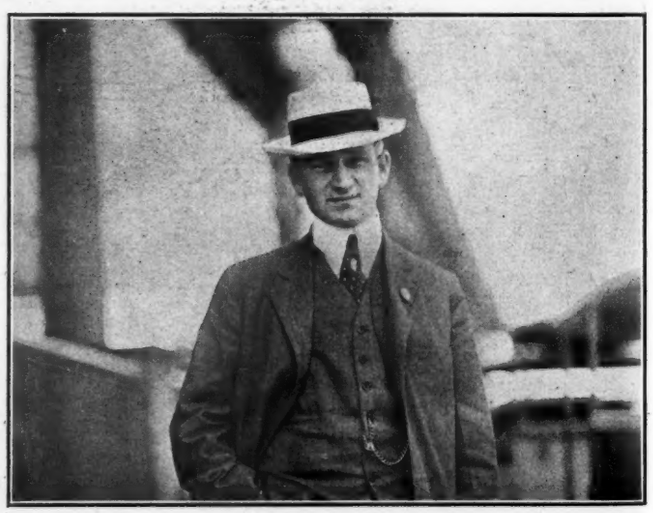
W. H. Bennett, master mechanic, Juniata shops, Pennsylvania Railroad, is here with his wife and daughter Elma, who has attended every convention since her birth five years ago. Mr. Bennett had charge of the construction of the three Pennsylvania locomotives on the exhibit track on Georgia Avenue. He has been at the Juniata shops since they were built in 1890, starting there as a foreman of the erecting shop. He was appointed master mechanic in 1901. His total time of service with the Pennsylvania is 42 years.

Two of the "San Francisco 1915" boosters left us on Sun-



T. Millar, General Car Inspector, Boston & Maine

day, so that things will probably be somewhat more quiet in this direction during the meeting of the Master Mechanics. These were L. L. Yates, superintendent of the car department of the Pacific Fruit Express Company, and W. H. Emerick, general traveling agent of the same company. These two gentlemen were almost invariably to be found together during the meeting last week and present almost as much of a difference in size and capacity (physical) as do "Big Bill" Steel and litt'e Hiram Hammett.

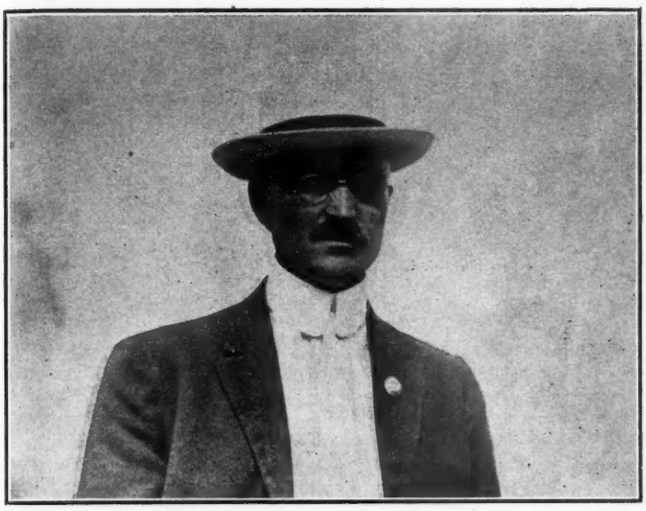


E. H. Wood, Division Car Foreman, Canadian Pacific

Mrs. G. P. Robinson, wife of the assistant chief inspector of locomotive boiler inspection, arrived Saturday evening and expects to have her hands pretty full during the next few days in looking after the boys of the boiler inspection department. During the past year she accompanied Mr. Robinson on a trip to the coast in which they covered a good part of the country, being gone for several weeks. Some of our railroad friends might be shocked if they were to inter-

view her on the smooth riding and rough riding qualities of the passenger trains on their respective roads.

Mr. and Mrs. T. N. Ramsdell cannot be present at the conventions this year. Mr. Ramsdell, formerly of the Chesapeake & Ohio and later with the Chicago & Alton, has been appointed master car builder of the Oregon-Washington R. R. and Navigation Company, with headquarters at Portland. Mr. Ramsdell could not leave for the east on account of the



H. G. Rande, Foreman Car Repairs, Newburg & South Shore

pressure of his new duties. Miss Louise Ramsdell, Mr. and Mrs. Ramsdell's daughter, however, is greatly enjoying meeting her father's and mother's friends and her own in Atlantic City. She is stopping with friends at Chalfonte.

W. E. Symonds, of Chicago, is the subject of a pretty good joke. It seems that in the early days the clan from which he came used an "i" instead of a "y" in spelling the name. As is quite often the case in large families, some of the members

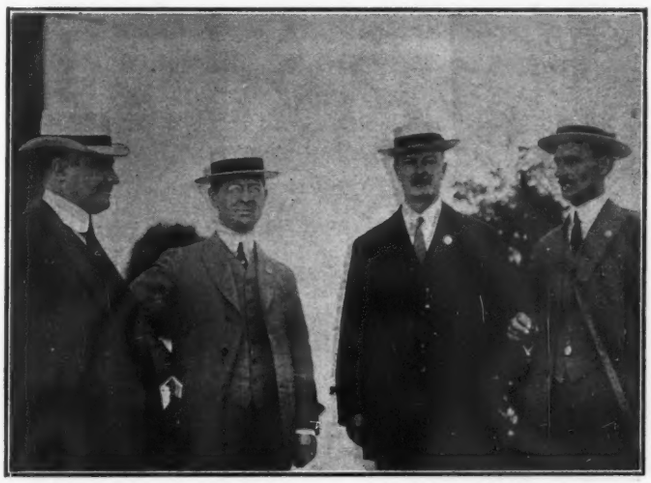
J. P. Yergy, General Car Inspector, Pennsylvania

developed into black sheep and the conditions became so bad that they were disowned. To indicate the black sheep, the spelling of the name was changed from y to i. Mr. Symonds has a pretty fair record and it is hardly fair to bring up the matter which happened a couple of hundred years or more ago, and yet in the interests of history and accuracy we cannot afford to neglect placing it upon record.

Bob Pickard, master mechanic of the Lackawanna at East Buffalo, is accompanied by Mrs. Pickard this year. He reports that his shop superintendent, W. W. Scott, at East Buffalo, who is also president of the International Railway General Foreman's Association, is hard at work in lining up the program for the annual meeting of that association, which is to take place in July, and that it promises to be an exceptionally good one. Bob was president of this association for two years, and was succeeded by "Scotty." Both of them are pretty good boosters, and have done much to build up and develop the association to the high standard which it now occupies.

J. H. Manning, superintendent of motive power of the Delaware & Hudson Company, is interested in new power. The Delaware & Hudson is one of the hard coal burning roads that is just going into the use of Pacific type locomotives, an order having been recently placed with the American Locomotive Company for ten engines of this type. Up to this time the heaviest passenger trains on the D. & H. have been handled entirely by locomotives of the ten-wheel type. The new Pacific type engines are to have 24-in. by 28-in. cylinders, 69-in. drivers, a working steam pressure of 205 lb., and a total weight of 293,000 lb.

Herbert Kleine, son of R. L. Kleine, came over from Altoona on Friday evening and will spend a few days at the convention. Herbert has just entered high school and



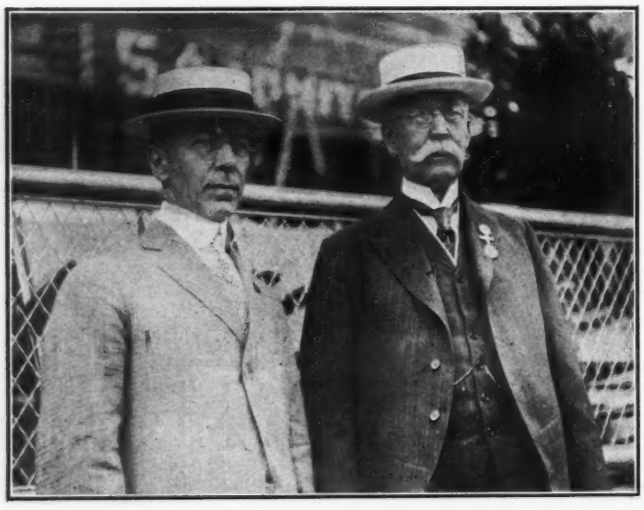
Left to Right—J. R. Mitchell, W. H. Miner; W. R. McMunie, Chief Clerk to Superintendent Rolling Stock, New York Central; R. B. Moore, Superintendent Motive Power, Duluth & Iron Range; S. H. Selloy, General Foreman, Car Department, Boston & Albany

his dad brought him over to let him see what a railway convention was really like. Herbert slipped the word to us that while he enjoyed the exhibits on the Pier he was really getting most of his fun in sizing up things on the boardwalk. Apparently he does not possess the same serious disposition that is so characteristic of his father. However, now that R. L. has got the coupler report out of his system, he seems to be growing more cheerful every day.

Mrs. C. A. Seley is attending the convention this year and is getting a lot of quiet enjoyment out of meeting and sizing up the convention visitors. Nobody can remember back to the point where Mr. Seley has not attended the meetings of the two associations, but this is only Mrs. Seley's third visit. The cares of the household over which she presides have been considerably reduced during the past year by the marriage of the two daughters, both of them getting married within a period of two months. Fortunately they both live within ten minutes' walk of the Seley home, so that the girls still continue to see a great deal of their mother.

Parkesburg, with all of its prosperity, as announced in the *Daily* two or three days ago, has been brought to a realization that it must share its optimistic spirit with Pittsburgh, or at least a small corner of the smoky city. The American Flexible Staybolt Company, according to C. A. Seley, has been operating its plant at full force day and night since last March. Two of the installations of its bolts are especially noteworthy because of their being used throughout the boiler and not alone in the breakage zones, as is usually the case where flexible staybolts are applied. These installations include some of the new Norfolk & Western Mallets and a number of heavy engines on the Buffalo, Rochester & Pittsburgh.

George P. Nichols lives at Kenilworth, a suburb of Chicago. He has a garage that is approached by a narrow, winding road, which means that his automobile has to be run into the garage head on and then backed out again when needed. The common way of correcting an inconvenience of this kind is to build a turntable in front of the garage; and to Mr. Nichols, himself a designer of turntables, this remedy at once occurred. But Mr. Nichols likes to be "different;" so he set about to find some new way out of his difficulty. The result was, that he has decided to put the



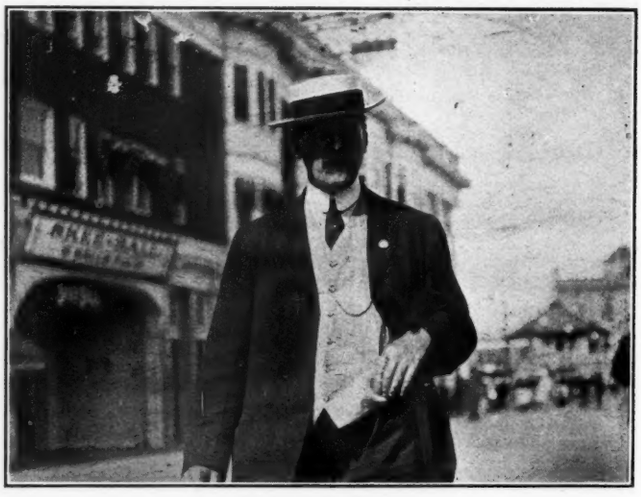
Left to Right—M. K. Barnum, General Mechanical Inspector, Baltimore & Ohio, and J. J. Hennessey, Master Car Builder, Chicago, Milwaukee & St. Paul

garage itself on a turntable and so arrange the mechanism that the whole structure can be easily revolved by hand.

Mrs. J. T. Carroll left for home Sunday morning. Like the wives of a good many other railroad men she had occasion to give John a pretty stiff calling down Saturday evening. It seems that she lost a very valuable slipper buckle, and, in his anxiety to get to the golf grounds Saturday morning, John forgot to read thoroughly the *Daily* published on that morning and overlooked the announcement that the buckle had been found and could be obtained at the *Railway Age Gazette* space. From the part of the conversation which we overheard it is altogether probable that John will not only read the *Daily*, but the weekly issues of the *Gazette* as well from this time on, and that he will be one of the boosters for the effectiveness of this medium from an advertising standpoint.

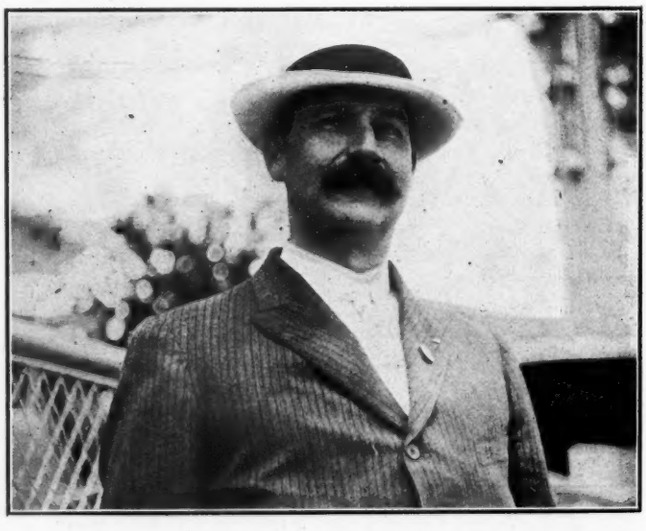
A. N. Dugan, of the Bronze Metal Company, was married in New York last Thursday and is attending the convention with his bride. Alex Turner is getting pretty much concerned because he does not appear to be giving much attention to the railroad men but spends practically all of his time in sweet nothings on the boardwalk and in trying to tell what the sad sea waves are saying. Duke is pretty well known among the railroad fraternity as being a clever imitator. He is said to have done so well in imitating the phonograph that he has put Tom Edison to shame a number of times. However, Duke is not putting over any imitation this time. His bride is the real thing and with her winning ways is making many friends among the visitors at the convention.

Mr. J. E. McQuillen, mechanical superintendent, Gulf Lines



J. F. De Voy, Assistant Superintendent of Motive Power, Chicago, Milwaukee & St. Paul

of the Santa Fe, is joining the Master Mechanics' Association this year. Mr. McQuillen accompanied Mr. Haig, mechanical engineer of the Santa Fe system to Atlantic City. Coming out of Chicago they rode on one of the few trains of the New York Central Lines from which passes are not barred. Practically all of the trains from numbers 1 to 200 inclusive do not carry "dead heads," therefore the train on which they rode was naturally quite slow. During the night Mr. Haig was



J. A. McRae, Mechanical Engineer of the Michigan Central

awakened from a sound sleep by hearing Mr. McQuillen calling him. When he awoke he found Mr. McQuillen with his clothes in one hand, and about to throw his suit case out of the window with the other. On asking him what was the matter, Mr. McQuillen said: "They have put us in the hole here and are running all the freight trains around us. Let's jump out of the window and flag one of those freights, or we won't get 'up No'th' before the convention is over."